

In This Issue—*Building a Tire Business*

MOTOR AGE

Vol. XLVIII
Number 9

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CHICAGO, AUGUST 27, 1925

Thirty-five Cents a Copy
Three Dollars a Year

HUDSON-ESSEX ANNOUNCE NEW LOW PRICES



Hudson Coach

\$1195

Freight and Tax Extra

Essex Coach

\$795

Freight and Tax Extra

The Outstanding Dealer Opportunity

Hudson-Essex cars give dealers unrivalled position in the close competition of today. They are the largest selling 6-cylinder cars in the world. The line has proved over and over again the most profitable dealer proposition, with greater possibilities for growth than any opportunity in the automotive field. The proof is all about you in the active sales and prosperity of Hudson-Essex dealers.

Fast sales at low selling cost, small service expense, and no investment in slow-moving models, mean real profits and a sound assurance of permanent growing business.

Hudson Brougham \$1495 — Hudson Sedan \$1695

Freight and Tax Extra

HUDSON MOTOR CAR COMPANY, DETROIT, MICHIGAN



"I never again expect to buy a common case hardened wrench"

That is what Mr. C. E. Betts, Betts Garage, Westport, Conn. says. Mr. Betts wrote Auto Trade Journal as follows:

"The Auto Trade Journal is in my bookcase where I can easily refer to it. The reading matter in it is of great interest but the ads are of more practical use. As an example, I saw chrome vanadium wrenches advertised. After much insistence my jobber secured a dozen for me and I never again expect to buy a common case-hardened wrench."



Set No. 25

Contains six "CV" Engineer's type 15 degree angle wrenches with 12 different openings from $\frac{3}{8}$ " to 1". Price, east of Mississippi \$6.85 without Leatherette Roll. \$7.85 with Roll. Canadian and Western prices slightly higher.

We know that Bonney *C. V. Chrome Vanadium wrenches are superior.... Mr. Betts found it out for himself.... And a trial will convince you.

Order a No. 25 set today.

*C. V. is a Bonney trademark registered in the U. S. Patent Office

You can secure from your jobber. Write for detailed information.

Bonney Forge & Tool Works
Allentown, Pa.

Makers of Special Service Wrenches of Chrome Vanadium, Carbon Steel Drop Forged Wrenches, Stillson Wrenches, Vises and Drop Forgings and the Bonney Rim Tool.



BONNEY

Chrome-**CV**-Vanadium

WRENCHES

(Patents Pending)



THE NEW MOON LINE



The MOON
"Year Ahead"
Six

The DIANA
Light
Straight 8

Growing Greater Every Month

Moon's July business increased 59% over last year. In actual dollars and cents it was 65% better, due to the great increase in closed car sales. In St. Louis Moon ranked Sixth in June registrations. Three of the makes that sold ahead of Moon were low priced Fours. The other two were Sixes with cars to sell way below Moon prices.

The simple matter of fact is that everywhere people are alive to the fact that Moon

has brought out a greater value in the Year Ahead Six and the Diana 8—a newer, smarter buying appeal.

Shrewd dealers are snapping up the opportunity of getting in on Moon's steadily rising market. They realize that Moon, with profit and volume going steadily upward, offers new opportunities for leadership in their community.

Write for territory reservations; we will advise you if the Moon franchise is open.

MOON MOTOR CAR COMPANY, ST. LOUIS, U. S. A.

AS LONG AS THERE IS AN AUTOMOBILE BUSINESS YOU WILL FIND MOON AMONG THE LEADERS

ECLIPSE

STARTER



PRODUCTS



CAUTION: In our Bendix Drive advertisements, appearing regularly each month in The Saturday Evening Post and The Literary Digest, the public is being cautioned to buy none but genuine parts and to look for the name "Bendix" on each part.

This Label Protects You

Genuine Springs for the Eclipse Bendix Drive have a red and yellow label, which assures you highest quality materials, skilled workmanship and maximum service.

It pays to sell none but
GENUINE PARTS
FOR

ECLIPSE
BENDIX
DRIVE

ECLIPSE MACHINE COMPANY, ELMIRA, N.Y.

ECLIPSE MACHINE COMPANY, HOBOKEN, NEW JERSEY

ECLIPSE MACHINE COMPANY, Ltd., WALKERVILLE, ONTARIO

MOTOR AGE

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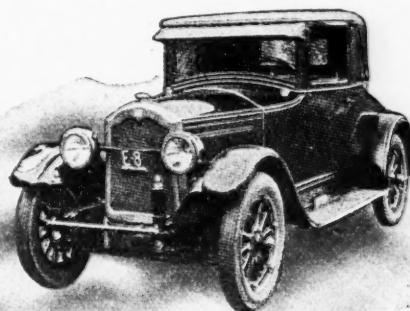
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 Entered as Second Class Matter, Sept. 19, 1899, at the Post Office at
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THERE'S
 NOTHING
 LIKE
AIR
 for Shock Absorption



WESTINGHOUSE AIR SPRINGS



Westinghouse Air Springs have, for fifteen years, proven that *Air Suspension* not only gives remarkably smooth riding, but prevents road shocks from reaching the frame and body. The piston, to which one end of the leaf spring is attached, acts directly on a chamber of compressed air which insulates the rest of the car from shocks and vibrations.

The new Junior and Midway Westinghouse Air Springs are made for cars up to 3,000 and 4,000 lbs. respectively.

They are installed with brackets integral with the standard fittings of the car, are interchangeable with new car brackets and easier to install.

The Air Springs and fittings for attachment are supplied direct to dealers and service stations on a wholesale basis. There is a *large margin of profit for you*. Selling and installing them means real money.

Westinghouse Air Springs are the finest known device for shock elimination.

Let us send you full information and wholesale prices at once.

Address Dept. M.

THE WESTINGHOUSE AIR SPRING CO.
 NEW HAVEN, CONN.

New York
 Boston

Philadelphia
 Atlanta
 San Francisco

Cleveland
 Chicago





HAVE you ever had a manufacturer ask you—"Are you SURE you want the cars you have ordered?" This has happened not once, but many times, at this factory.

The fact that no Stutz distributor or dealer is carrying an excess stock of cars—backed by the added fact that the "used car" problem presents no great worries, should be an indication of the sound policies we are building back of Stutz distribution. And every Stutz dealer we have talked to is confident of the future permanence and profit of his connection.

FREDRICK E. MOSKOVICS
President
STUTZ MOTOR CAR COMPANY
of AMERICA, INC.
INDIANAPOLIS, INDIANA



*This symbol means that Studebaker prices do not
include the profits of outside body makers*

Since the price reductions of August 1st, Studebaker dealers find themselves in a most enviable position—for Studebaker quality was not reduced one whit. Studebakers are still the same *fine* Studebakers—upholstery, bodies and chassis have not been cheapened to make possible the new reduced prices. Thus the economies of one-profit manufacture make the Studebaker franchise increasingly valuable to the dealer.

THE STUDEBAKER CORPORATION
OF AMERICA
SOUTH BEND, INDIANA

T H I S I S A S T U D E B A K E R Y E A R



Nash Leads the World in Motor Car Value

Now Nash Enters New Era of Even Greater Success

During the twelve-month period ended July 31st, Nash sales success focused and held the attention of the whole country.

Month by month the demand mounted. Scarcely was a new high record set before it was eclipsed.

And the period wound up with *a clear gain of 62%* in sales and production over the previous corresponding twelve months.

NOW—with new models selling like wildfire, drawing greater crowds than ever, and offering values not to be matched in their field, Nash is already driving fast toward a year that will completely dwarf the phenomenal year just closed.

Production has been stepped up again, sales are racing on ahead—and all because "*Nash Leads the World in Motor Car Value*" by a broader margin today than ever before.

(2177)

NASH



Are You Making Money On Valve Repair Jobs?

There are still a number of garage and repair men who believe they make more money regrounding old valves than by installing new ones. They're just kidding themselves.

If you don't believe this—go and ask any one of the thousands of garage and repair men who install complete new sets of James Motor Valves. Here's what they'll tell you.

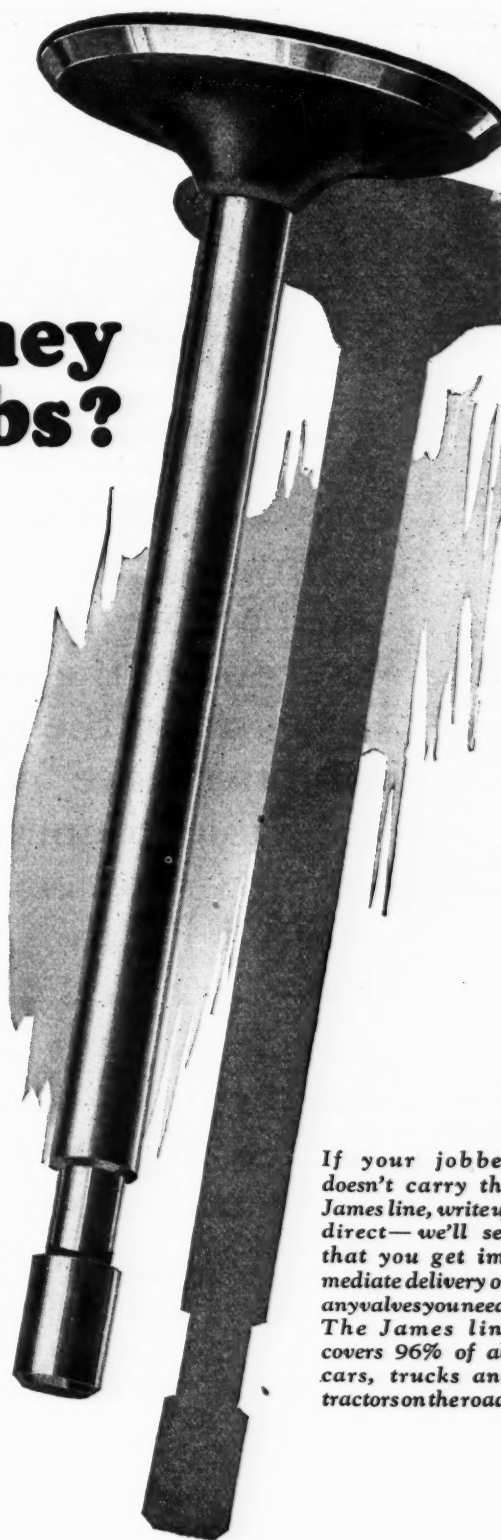
It costs the car owner very little more for a complete new set of valves. He's glad to pay the slight extra cost for this better job.

Engine performance is not only much better but the job lasts. The car owner gets much more for his money—he's better satisfied in the end, which builds more business.

Then it takes much less time and effort to install new valves and the profits on the job are *actually* greater.

Get in touch with your jobber and put in a complete new set of James Motor Valves in your next valve job. Test this out for yourself. You will quickly see that re-grinding old valves is a thing of the past—unsatisfactory and unprofitable.

Be sure and get James Motor Valves because they are the *better* valve—popular with garage and repair men from coast to coast.



If your jobber doesn't carry the James line, write us direct—we'll see that you get immediate delivery on any valves you need. The James line covers 96% of all cars, trucks and tractors on the road.

JAMES MOTOR VALVE COMPANY

1350 Maple Street

Detroit, Michigan





PROFIT

We assume you are in business to make money. That is why you should not fail to investigate a Chrysler dealership. It has become the most popular and, dealers say, one of the most profitable motor car accounts in the industry. Its earning possibilities have made it one of the most desirable connections among all of the country's better dealers. This is demonstrated by the high type of men who have grasped the opportunity to be associated with Chrysler. A franchise to sell the most discussed cars in America is well worth looking into—if it is profit you are working for. We will consider your application in the strictest confidence.

No. 1—Profit

A notable product, high quality, obvious value, factory co-operation, liberal policies, high resale value—these are the fundamentals of a successful and profitable dealership. Watch for the Chrysler comments on these all-important phases of your business. If you have not read the earlier talks, we will be glad to send you copies.

CHRYSLER SALES CORPORATION, DETROIT, MICH.
CHRYSLER CORPORATION OF CANADA, LIMITED, WINDSOR, ONTARIO

CHRYSLER

SIX ~ FOUR

MOTOR AGE

Vol. XLVIII

Chicago, August 27, 1925

No. 9

Summary and Index of Important Events in **This Week's Automotive News**

Detailed Stories from MOTOR AGE Staff Writers and Special Correspondents Appear in News Section Beginning on Page 32

TREND of output in automotive industry is pointing down, although many of the largest factories still are working at full capacity. Most of production being used to care for unfilled orders that have been held over from early summer. page 32.

Good management will be theme of discussion at the annual fall convention of the Motor & Accessory Manufacturers' Association to be held in Montreal in October. page 33.

Delayed buying is believed by Detroit authorities to be one of prime causes of the recent great increase in sales volume. page 33.

N. A. D. A. survey finds that most automobile sales of present day are replacements, from two to four transactions generally being necessary before dealer gets back his investment with a profit. page 34.

Radio dealers of Illinois, Indiana and Ohio meet with Gibson Company in sales school. Nebraska Buick dealers study radio in meeting at Lincoln. page 34.

Firestone nears end of negotiations for tract of land in Liberia for rubber plantation. Lease virtually ratified. page 32.

Merger of General Motors truck division with Yellow Cab Manufacturing Company, forming Yellow Truck & Coach Manufacturing Co., to become effective Sept. 1. Page 35.

Car rental officials meet to arrange plan to protect public from careless and irresponsible drivers. Page 36.

Series of sales congresses is planned by N. A. D. A. to start September 9. Used car plans and dealer profits will be subjects stressed. Page 37.

Invitations are sent out by National Automobile Chamber of Commerce for the second World Motor Transport Congress to be held in New York, January 11-13. Page 43.

Alfred Hacking, secretary of Motor Manufacturers' & Traders' Society of London, sees great market in British Isles for American automobiles. Page 43.

European bars against automobiles from the United States are gradually being lowered, declares secretary of foreign trade committee of N. A. C. C. Page 38.

Pierce-Arrow sales manager sees great change in buying habits of the public, following 9,000-mile tour throughout the United States. Page 38.

Auburn Automobile Company declares 100 per cent stock dividend on common shares, and increases capitalization from \$750,000 to \$1,500,000. Page 39.

Hudson-Essex reports production of Essex cars thus far in 1925 has reached 100,000, which is 15 per cent more than entire output of 1924. Page 39.

A. A. A. gets behind campaign to reduce war excise taxes on automobiles, parts and accessories. Page 37.

California dealers charge that jobbers and manufacturers are pursuing lax methods in extending credit to "fly-by-night" operators. Page 35.

U. S. Bureau of Standards issues statement denying impression that alcohol fuel must have high ratio of compression. Page 36.

In Next Week's Issue—For Winter Business—"Slick Up" Now.

"ANYWHERE ANY TIME"

Builds Big

TIRE BUSINESS

*Ford Dealer Who Develops Huge Trade
in Casings and Tubes Trains Salesmen to
Sell by the Set*

By A. W. ROE

GROWING from a small beginning to what is easily one of the largest tire retailing establishments in the South in the short period of nine years is the record of the Adams Tire Service of Mobile, Alabama. By concentrating unusual efforts on service, Adams has developed a business that covers the city of Mobile, the county of Mobile and the surrounding environs.

Adams is here, there and everywhere in this territory, at all hours of the day and the night.

"Anywhere—Anytime," is a slogan that Adams has capitalized and made into more than a mere catchword. "As near as the nearest telephone," might be another motto of this company, for the arms of its service reach far and wide over the area it serves.

Back of Adams Tire Service are men of vision who are responsible for laying the foundation stones of the business and the erection of a superstructure of service that is unique in the annals of tire retailing.

Nine years ago, L. G. Adams, who has held the Ford agency in Mobile since 1912 and who has developed it from a "hole in the wall" in a rented show room in an unpromising location to a quarter-of-a-million dollar home on Government street, Mobile's fashionable thoroughfare, looked about him and decided to launch a small tire business.

He put in a small stock of 30x3½ tires in the already mentioned "hole in the wall." From this insignificant origin has grown a business the stock of which now represents an investment of \$60,000 in tires alone, housed, not in the three-story plant of the Ford company, but just across the street from it in a plant that provides something new in tire retailing establishments.

To Have Six Tire Stations

In addition, the Adams Tire Service operates three sub-stations in and near Mobile and will add soon two other sub-stations, making six in all, given over to the ramifications of the tire business.

To Mr. Adams, himself, belongs the credit for seeing the opportunities and shaping the bigger policies of the now extensive business, and to J. W. Lord, manager, who



L. G. Adams, president of the Adams Motor Company and the Adams Tire Service, Mobile, Ala., who has developed one of the largest tire retailing businesses in the country

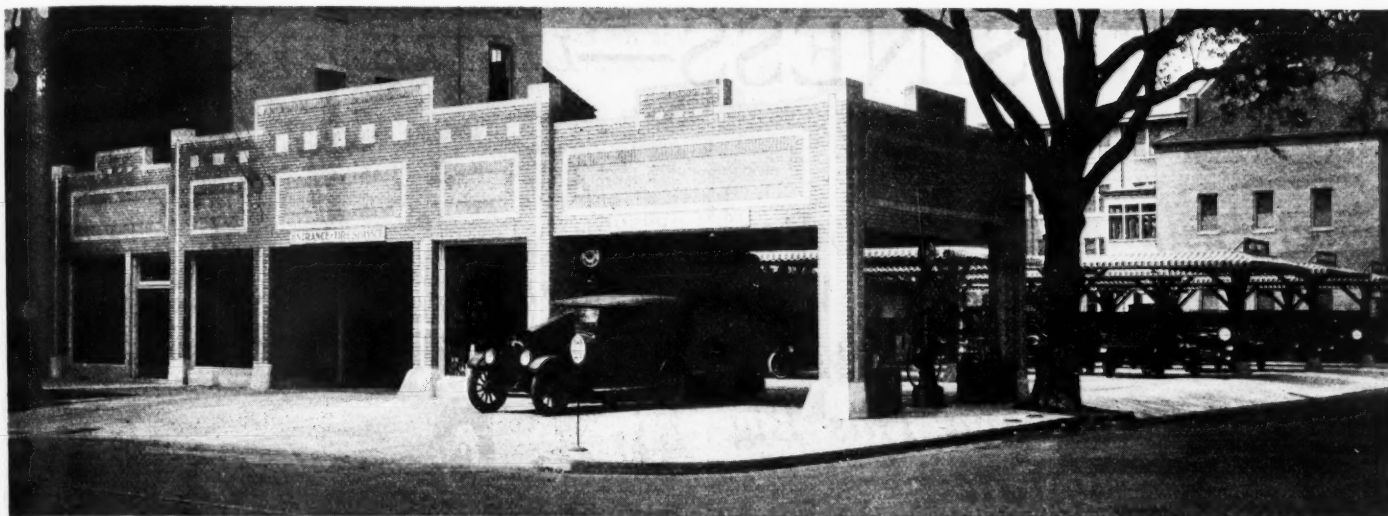
has been at the helm of the tire service's craft for the last eight years, belong the credit, as Mr. Adams says, of looking after the countless details and advertising so that "Anywhere—Anytime" has become a slogan associated indissolubly with the name of the "Adams Tire Service" in the minds of the motoring public of Mobile and vicinity.

After coming to the then infant business Mr. Lord first put his house in order by departmentizing each division of it. Then he looked around for new avenues through which to reach the public. Complete night service had already been installed, but the manager saw that in order to make further expansion feasible it was necessary to go out into the highways and byways, to speak biblically, and comb them for trade.

Elaborate Publicity Program

Thus it was that he turned to a rather elaborate system of publicity, including newspaper advertising, billboards and direct mail. The company is running at the present time ten, 50-foot bulletins, one, 100-foot board and one, 150-foot board, said to be the biggest and longest billboard in Southern Alabama. The messages on these boards are changed frequently; they are never allowed to grow stale, but "service" is the word that is played up on all of them. Mr. Lord considers the slogan, "Anywhere—Anytime," which is printed conspicuously on every tire cover the company sells as being the best publicity the company has ever used.

Then it was that Mr. Lord educated his salesmen to sell tires by the set. The salesmen were instructed in



View of parent plant of the Adams Tire Service, showing awning-covered "terminals" in the rear

the gentle art of suggestion. Just as automobile dealers have profited by the policy of selling the car fully equipped with accessories, Mr. Lord has found that his innovation of re-tiring the car all round has a permanent place in the sales end of the business.

The passage in 1923 of a city ordinance, prohibiting the giving of Sunday tire service by any establishment within the city limits of Mobile, furnished the occasion for the opening of tire station Number Two, located about three miles from the heart of the city. Although the ordinance was repealed soon after its passage, station Number Two had already established its right to live and caused the company to think of putting in other sub-stations.

After Wholesale Patronage

Consequently, station Number Three was set up to capture wholesale and commercial business in the shipping area of the city. In May of 1924, station Number Four was opened on the Cedar Point road, about three miles from the city, and it has prospered because it catches business from baseball, tourist and outing enthusiasts. Two other stations are to be opened soon, making five sub-stations that the Adams organization will operate in conjunction with the parent station on Government street.

With this network of tire stations the Adams Tire Service is now able to give more efficient and quicker service than would be possible if all tires went out from the parent station. Each station is equipped with a complete

stock of tires, and has its own service trucks, operated by skilled tire men.

"We now employ an effective relay system," Mr. Lord said. "It works something like this. If a customer, stalled on the road, 'phones in here at Station Number One and tells us he has a flat, we ascertain from him exactly where he is being detained and the make and size of tire that he needs.

Then we consult our map and find out which station he is nearest and 'phone the manager of that station to take the job in hand.

Free Tire Service Anywhere

"We give free tire service to our customers even though they be as many as 50 miles from our main station. If a man buys his casings or tubes from us we give him service on them. We mean by this that if he is one or 50 miles from our place of business, we will go to him and put an extra tire on his wheel without charge, bring in his flat and repair it, charging for the job only the amount that is necessary for repairing the tube, which is usually about 50 cents.

"Each station operates as a separate unit, and each has always shown a profit. Each station sells gas, and if a man is out of gas, upon request we have five gallons delivered to him free of charge no matter whether he has been our customer previously or not. He usually is after we make one such delivery. We have delivered gas as far as 45 miles."

Adams has been selling tires on terms for three years and has had marked success with this plan, direct mail being the main agency through which the company calls the attention of desirable accounts to the time-payment plan.

Mr. Adams keeps a unit record of the number of tires each salesman sells. Various prizes are offered, usually monthly, to stimulate efforts among the salesmen. Prizes and conditions are changed often to avoid monotony. One month the big prize went to the man who took off the greatest number of competitors' tires and replaced them with Adams's.

The parent tire station on Government street is the last word in convenience and attractiveness. The front is built of tile brick of two colors, so attractively arranged as to appeal to women, many of whom patronize the station. From the entrance on Government street, cars drive through to the service station in the rear. Instead of this being in a covered shed, where the fumes and heat would make the place almost unbearable for workmen and patrons, the company has erected five awnings that extend out from the stock rooms very much like the fingers of a big railroad terminal. The entire floor space of 11,760 square feet is concreted. The place presents a very genteel appearance and an orderliness that appeals to the most discriminating class of trade. As many as 28 cars can be serviced at the same time without undue crowding.

The tire service employs 57 persons and has 15 service trucks engaged in road service work.



J. W. Lord, manager of the Adams Tire Service

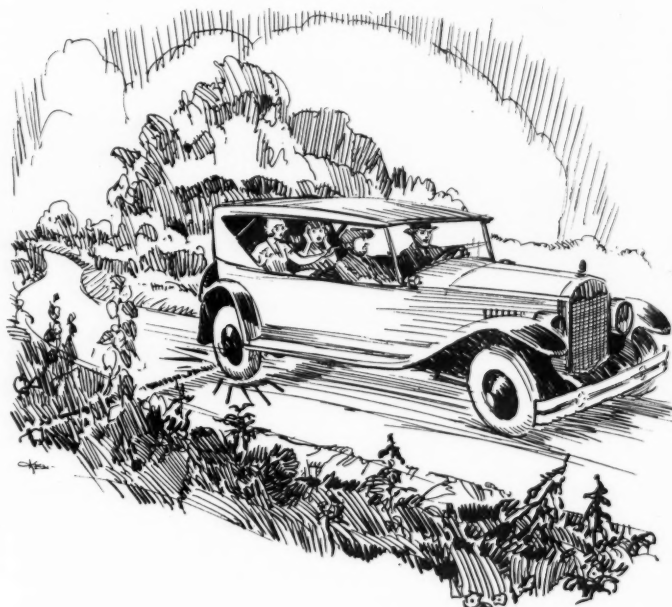
BIG BUSINESS—LITTLE OVERHEAD

Novel Installation Yard Recommended in Connection With the Sale of Bosch Shock Absorbers Costs Little and Has Big Possibilities

HARWOOD was pleased with himself, not that this was anything out of the ordinary, but this time he was especially pleased. Two weeks ago he had bought a new car, one of America's finest, everyone said so, even the wife, so there could be no question about it. Harwood thought of its beautiful lines, its sturdy power plant, its comfortable cushions. Yes he would do it. Would invite the boss and his wife out to the cottage at the lake to spend the week end. But alas for the plans of mice and men.

All had gone well until Harwood started to take a short cut. The boss was with him, up in front, while the ladies rode in back. Then came the darkest hour. Across the road stretched a ditch, a left-over scar of some buried pipe, filled, 'tis true, but a bad job at that. Harwood saw it, but too late. The flexible rear springs bent under the blow, then released their pent up energy, as the best of springs will do, and two shrieks penetrated the woods, as two bobbed heads struck the top.

The event was not serious, no harm had been done, but for Harwood the day was spoiled, the effect he had hoped to create with the new car had been marred. He was one of a million prospects, one of several million who yearly buy new cars, and demand the maximum that balloon tires, well designed springs and shock absorbers can afford. All but the latter were there and these would be added the first



time Harwood came to a place where shock absorber installation was being done in a businesslike manner.

Help Shock Absorber Sales

"Experiences of this sort," I was told by the Bosch sales manager, "are the things that make it easy to sell shock absorbers, and with an outdoor installation system, that everybody can see, it makes things still easier." And the method of outdoor installation which was started at the two large stations in Springfield, Mass., and at Chicago have not only justified their own existence but have shown the possibilities of similar profitable business for the dealers and specialized shops in the smaller communities.

Overhead expense is the thing which makes the profits fade away. There may be a substantial discount on a tire, a battery or a spotlight, but if the cost of the building, the management and a hundred and one other items eat up all the margin, then the boss himself finds it hard to eat.

In practically every shop there is a man used as a helper, or in a minor mechanical capacity. Such a man can be trained to make shock absorber installations, for with the Bosch system detailed instructions are provided covering each make and model, while special fittings and a cleverly designed universal type of bracket make it possible to handle all jobs with three types of equipment, an initial order of ten sets being enough for the dealer to start on. The adjustable feature also helps in the original installation as well as making it simple to adapt one type to balloon or cord tire equipment and to varying load requirements.

In the smaller communities and even in most large ones, it is often possible to get the use of a vacant lot adjoining or near the dealer's place of business, and the arrangement of this space can be made so attractive that the appearance alone is of great advertising value.

Profitable Side Lines

Specialized electrical stations are finding that side lines such as this one can be profitably handled, not because they require electrical trouble shooters, but because they add one more item which can be sold with no appreciable increase in the overhead.



Derebey, who runs this snappy appearing electrical station, was quick to grab this new profit producing idea

One typical illustration of an up-and-doing electrical shop is the Albany Park Battery Station, located on the northwest side of Chicago and owned and operated by Chester H. Derebey.

This service station is official representative for Exide batteries, Stromberg carbureters, American Bosch, Delco, Remy, Klaxon, Gray and Davis, Briggs and Stratton, Atwater Kent and Connecticut, these accounts having been obtained due to the up-to-date business methods employed.

For example, Mr. Derebey was one of the first in his territory to install a constant potential charging system. He early put into effect the *charge-for-service* idea in connection with his battery work. He has an addressograph and a mimeographing machine for getting out advertising matter to the prospects in his territory.

Is it any wonder that he was quick to grasp the outdoor installation idea to bring more shekles into the treasury?

But wanting to get the reason back of his adoption of the idea, I said, "How does it happen that you, as an electrical specialist, take on this mechanical line?"

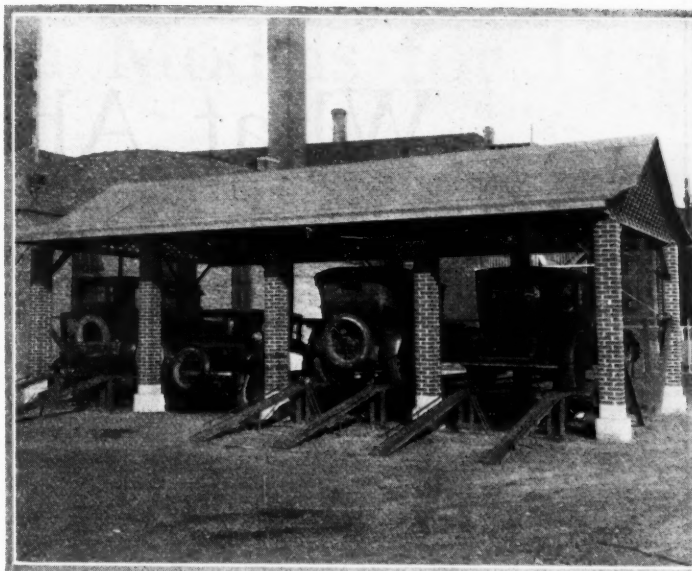
Registration Plan Is Effective

And Derebey said: "That's easy. First, you have to do a pile of electrical work to make as much from the labor as you do in putting on a forty dollar set of shock absorbers. That's one thing. Then, being electrical specialists, we find the registration plan the best thing that ever happened for bringing business our way. When a man buys a car with Bosch equipment, his name is given to the Bosch branch, a card is filled out and we get a copy.

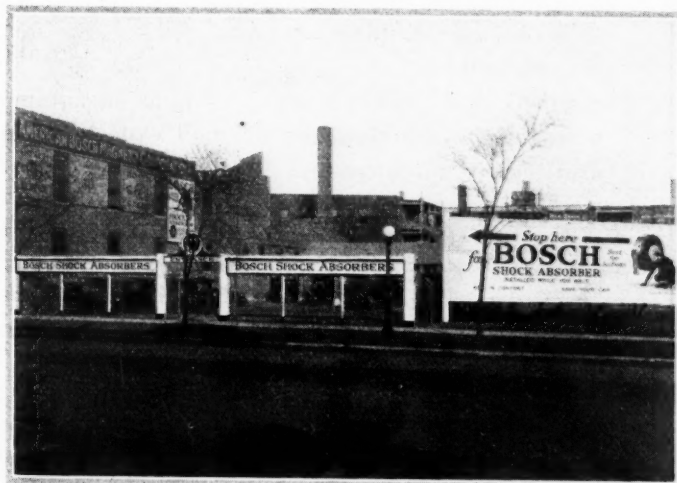
"The car purchaser comes to us for service and inspection of his electrical equipment, sees our installation facilities, hits a bump or two and the rest is easy. We have an ignition man, a carbureter man and two battery men. One of the latter does the shock absorber installation work—that's his job. When we are rushed on shock absorbers we can go easy on battery repairs for they will wait. It only means letting a customer have his rental battery a few days longer in rush periods."

In the case of the Albany Park Battery Station, no mechanical work or greasing is done on cars and it was found necessary to put up a sign which would make this clear. Where dealers in small towns would have such an installation rack, however, it could be worked in very well with washing and greasing, while the rack could also be used in connection with mechanical work such as bearing adjustment.

A Business Getter



Cars having shock absorbers installed at the Chicago branch



Outdoor installation yard of the American Bosch Magneto Corporation in Chicago

Aids to Quick Engine Starting

RICHNESS of the air-fuel mixture determines the number of revolutions that must be made by an automobile engine before an explosion is obtained, said J. O. Eisinger, of the Bureau of Standards, in a paper delivered at the semi-annual meeting of the Society of Automotive Engineers. Various other factors also affect the time for starting the engine, as determined by a series of tests conducted at the bureau.

Less fuel is used in starting if the mixture is comparatively rich, but the primary advantage to the driver is that it gets the engine started more quickly on a cold morning. The more volatile the fuel used, the more quickly the engine can be started, and aviation gasoline

gave better results than commercial motor fuel.

The problem of starting in cold weather depends to a large extent on the temperature of the charge and the degree of vaporization of the fuel. The quantity required for starting may be very different for different water jacket temperatures. More complete vaporization and quicker starting result from a decrease in throttle opening or by choking, which reduces the pressure in the intake system; choking gives somewhat better results than throttling. The use of $\frac{1}{2}$ -inch throttle and choke orifices greatly reduced the starting time.

The experiments also indicated that, from the standpoint of starting, it is de-

sirable to locate the carbureter jet so that the fuel will need to be lifted the least distance vertically by the air stream and that the jet of fuel should not be obstructed. More fuel reaches the cylinders in a given time, and the engine starting time is considerably reduced, for a given rate of fuel flow, when the jet discharges vertically upward and a small jet orifice is used, because the fuel stream has a greater velocity and rises to a greater height. Moderate spark advance also greatly aids in quick engine starting, an advance of about 35 degrees giving a much shorter starting time than an advance of 10 degrees and somewhat shorter time than advances of 50 or 80 degrees.

What About Radio?

RADIO merchandise is being retailed through many automotive establishments. Among these automotive establishments are to be found accessory stores, battery and electrical shops, garages, and automobile dealers who do a general business in new and used cars and supplies and equipment of all kinds.

Automotive jobbers in many sections of the country are becoming the wholesale distributors of radio products and it is only natural that to a considerable extent they would seek outlets for this merchandise through the same channels that they have been associated with in the distribution of automotive merchandise.

And yet there are some automotive merchants who stand definitely opposed to engaging in the radio business in conjunction with their automotive business. There are others who right now are actively engaged in putting in radio departments, and still others who are found to be giving serious thought to the matter.

What should the automotive merchant do about radio?

Does the radio business naturally fit in with the automobile business?

Is radio merchandising a profitable business?

Can the automotive merchant sell radio without neglecting his automotive business?

These are some of the questions that occur to

every automotive merchant who gives the least thought to the radio business.

Such questions as these cannot be answered with theoretical discussions. The answers must come from the experiences of dealers who have tried the radio business.

Therefore, MOTOR AGE will open its columns to a full discussion of this subject by dealers who have had experience in selling radio. We want car dealers, garage men accessory dealers, battery and electrical shops to tell us fully and freely just what their experience with radio has been. If they approve of radio as a sales field for the automotive merchant we want them to say so and tell why. If they disapprove we also want to know the reasons.

From the letters of dealers who have had experience with radio, MOTOR AGE editors will prepare articles summing up and discussing all the phases of the radio business and

quoting from the experience of individual dealers. Names of dealers, however, will not be published if a request is made that they not be, but all letters to receive consideration must bear the signature of the writer.

Please address letters to the Editor of MOTOR AGE, 5 South Wabash avenue, Chicago, Ill.

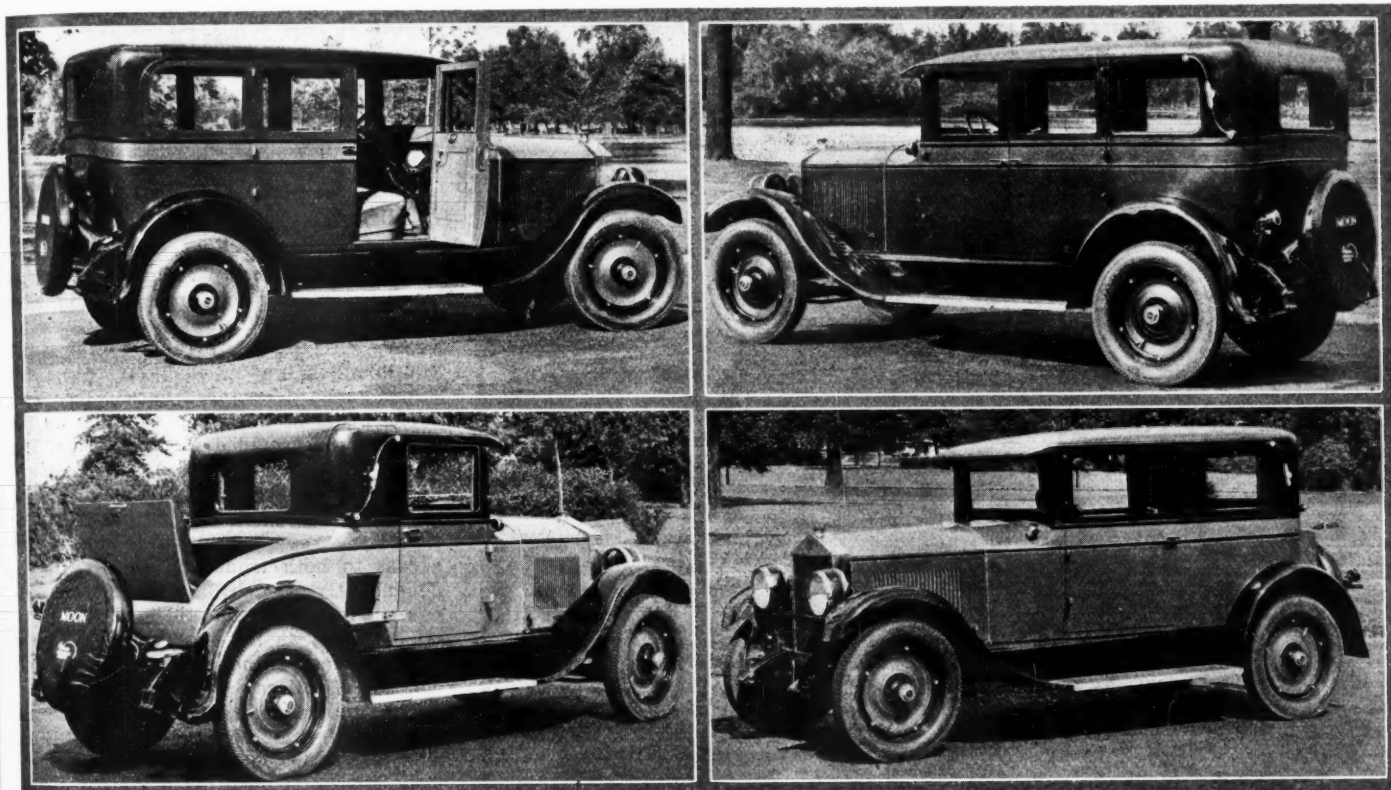
Watch next week's issue for the first article on "What About Radio?"

Tell Your Radio Experience to Motor Age

If as an automotive merchant you have had experience in selling radio merchandise, please tell MOTOR AGE about it. What you have learned may be of great help to a fellow dealer. Information contained in letters from dealers will be made the basis of articles to be published in MOTOR AGE on the subject, "What About Radio?" The more letters we get the better the articles will be. Send your letter to the Editor of MOTOR AGE, 5 South Wabash Ave., Chicago, Ill.

More About Radio in Next Week's Motor Age

Refinements Adding to Comfort and Appearance in Moon Models for 1926



Group of four Moon models for 1926. Top, left to right, three-quarter view of the Deluxe four-door sedan and the standard sedan. Below, left to right, the cabriolet roadster and the coach DeLuxe

IN the Moon cars for 1926 the basic lines of the car have been retained in keeping with the new day engineering policy now preferred in the automotive industry. The Moon Motor Car Company has for several years advocated and had in effect this policy of eliminating the yearly model idea in the cars this company manufactures. Changes in the Moon cars consist in reality of the refinements which have been incorporated in the cars to add to their roominess and comfort and to their appearance.

The shape of the radiator shell of the Moon cars for 1926 has been improved by deepening the radiator so that both the shell and the radiator have a much better appearance. The fenders have a deeper crown and an increase of 1 in. in width while the substitution of moulding for the raised center panel has added much to the appearance of the fenders. The front fenders are made much longer and with a longer and more graceful sweep, which lends a European effect to the fenders. The running board is much shorter and wider, necessitated by the change in the fender length.

All chassis sheet metal has been redesigned and a tank cover has been added

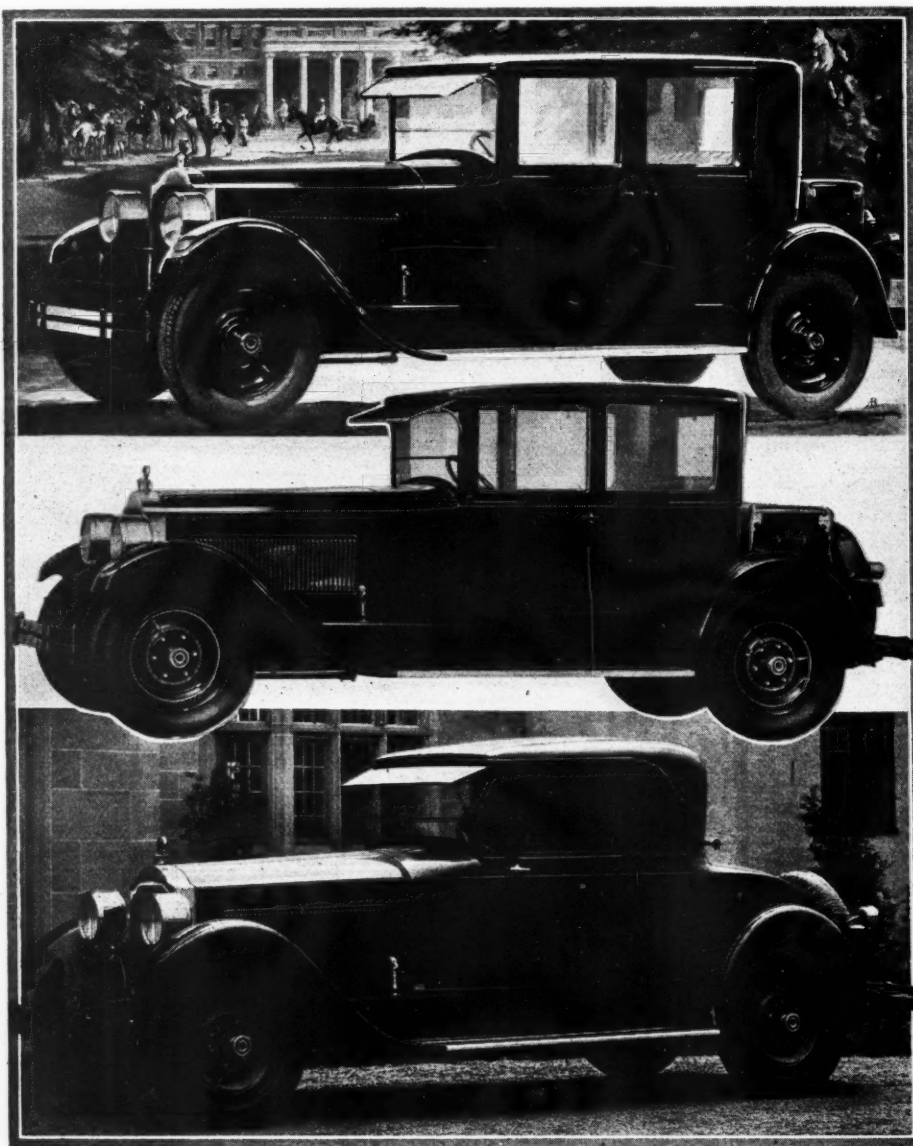
(Continued on page 42)



Interior of the Moon cabriolet roadster. The rear window can be lowered to any point desired

Packard Adds Four Passenger Coupe, Club Sedan and Holbrook Coupe

Former Two Are Mounted on Both Six and Eight Cylinder Chassis While Latter Is Available on the Eight Only—Roominess Features New Bodies



Three of the New Body Models on the Packard Eight Chassis, Top to Bottom, Five-Passenger Club-Sedan, Four-Passenger Coupe and Holbrook Two-Passenger Coupe

A NEW four passenger coupe and a five passenger club sedan together with a new special Holbrook coupe now are being offered by the Packard Motor Car Company. The four passenger coupe and the club sedan are mounted on both the six and eight chassis while the Holbrook coupe is offered only on the eight chassis.

The four passenger coupes and the club sedans both have large decks at the rear with attractive railings and each carries a large water and dust-proof metal trunk.

The club sedan is mounted on the 133 in. wheelbase six cylinder chassis and on the 143 in. wheelbase eight chassis. The price of the Packard Six club sedan is \$2725 while the price of the Eight club sedan is \$4890.

Dimensions of the club sedan body are alike for both the six and eight chassis. The six is upholstered and trimmed in the same material as other of the six cylinder enclosed cars. The same options of paint, trim and upholstery for all Packard eight cylinder cars are given on the new eight club sedan.

The trunks on both six and eight club sedans give unusual storage room for parcels or provide a place for several suit cases or traveling cases. They are 44½ inches long, 19¾ inches deep and 15½ inches wide.

Roomy Rear Seats

The rear seats are 49 in. wide, giving ample room for three persons and have the deep upholstering and springs together with the comfortable contours and width and height of cushions that mark other Packard enclosed cars. Two hassocks made of the same material as the carpets are provided for foot rests. The ample leg room in the rear seat is made even greater by cutting away the back of the front seat at the bottom for additional toe room. Four wide doors give access to both front and rear seats independently of each other. The front seat has a width of 46 in. and is of the same upholstering as the rear seat. Curtains for the rear windows are carried on concealed rollers.

The four passenger coupe in the six cylinder line is mounted on the 126 in. wheelbase chassis and the 136 in. wheelbase chassis is used for the eight coupe. Paint, upholstery and trimming on both these cars is the same as that on other Packard enclosed models, with the same distinctions between six and eight cars and the same options on the eight.

The driver's seat is set a little ahead of the two-passenger seat across the rest of the rear of the body. To the left of the rear seat is a parcel compartment with an opening in the top 8¾ by 17¾ in. The doors have the same opening as in the seven passenger sedan bodies.

The fourth seat which folds back under the cowl when not in use has deep spring upholstering and is 17¾ by 17¾ in. The driver's seat also is quite large with a seat cushion 22 in. wide by 17¾ in. deep. The back measures 23½ in. across. The two passenger seat is 39 in. wide and 21 in. deep. Curtains on concealed rollers are provided for the rear windows.

Rear Deck Trunks

Trunks carried on the rear decks of the coupes are considerably larger than those on the club sedans but are of the same materials and construction. They are 44½ in. long, 21½ in. wide and have a depth of 19¾ in. They are fastened securely to the large deck in the same manner as that employed on the club sedans and in a like manner are readily removable.

The six coupe is listed at \$2585 and

the eight coupe at \$4650. Equipment on both coupes and both club sedans is the same as that on other enclosed models, including snubbers on the six and stabilators on the eight, bumpers front and rear built into the chassis, motometer, dash gasoline gauge, rear view mirrors, automatic windshield cleaner, cigar lighter on dash, cowl ventilators, sun visors and a vanity case on the coupe.

The new Holbrook coupe, an attractive addition to the Packard array is mounted on the 136 in. wheelbase chassis; it is a two passenger car, complete with full equipment listing at \$5775.

There is an exceptionally large amount of space for stowing luggage in the rear deck in a compartment, access to which is obtained through a hinged dust and water proof door set into the deck. Another compartment 10 in. wide and extending practically the width of the body is located just behind the seat.

Through special design and construction the three piece "vacuum" type windshield with which this car is fitted allowed an almost unrestricted view forward while its appearance enhances the particular style of car.

Equipment is the same on the Holbrook coupe as on other Packard eight closed cars and the same options are given on painting, trimming and upholstery.

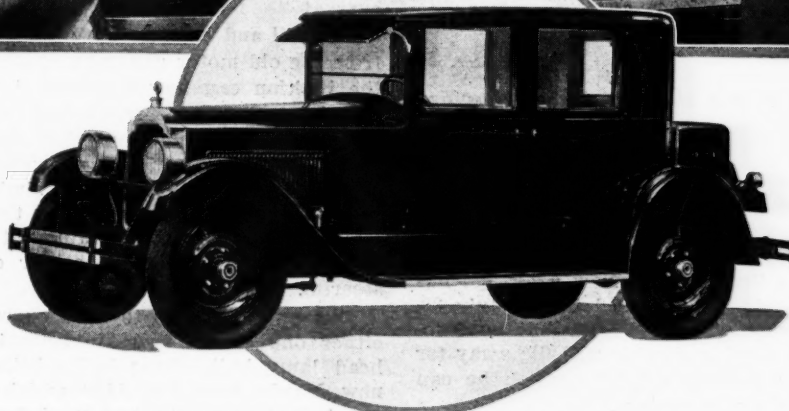
New Models, Lower Prices Aid Sales

SAN FRANCISCO, Aug. 22.—The last week in July and the first week in August might well have been called "New Car Fortnight" in San Francisco, for the motoring public within that period got its first glimpse of the new models of some dozen makes of passenger cars. This inspiring show, coupled with price reductions in most lines, makes the first two weeks of August look like a record for this month in San Francisco territory. Certainly the month will be far ahead of the same period last year.

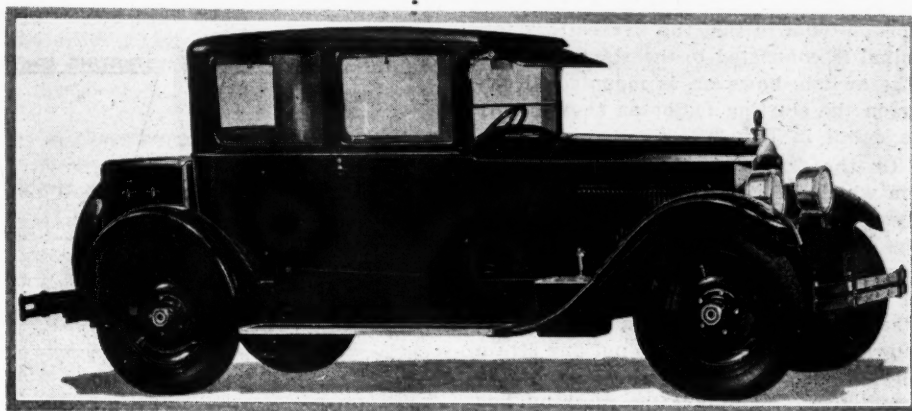
Among the new models shown were seven new Moons, featuring the coach de luxe; the new Chandlers, in which the Comrade Roadster and paneled radiator design attracted much attention; sixteen types of Buicks, master six and standard six chassis; new Nash models, with the Ajax Six, in two body styles, five-passenger touring model and five-passenger sedan; the new Diana, produced by Moon; new Star models, and the latest Oakland Six.

DEVELOP STEAM MOTOR

COLUMBUS, O., Aug. 22.— Papers have been filed chartering the Universal Steam Motors Co., of Columbus with an authorized capital of \$100,000 to develop a rotary steam engine for motor cars. The



Packard Four-Door Five Passenger Club Sedan Mounted on the Six-Cylinder Chassis. The Top View Shows the Comfortable Contour of the Seats



New Four-Passenger Coupe Mounted on the Packard Six Chassis. The Trunk at the Rear Is Metal and Exceptionally Roomy

incorporators are Harry C. Dunning of Chicago, the inventor; B. L. Thuma, A. F. Wise, E. C. Neidlander and Carl D. Preston. Mr. Dunning has worked for six years perfecting the engine which uses kerosene as fuel. It is a six cylinder engine and great power is claimed for the

invention. One of the engines invented by Mr. Dunning is on display in the lobby of the new Neil House. For the time being working models for the purpose of producing the engines in quantities will be made. It has not been decided where the factory will be located.

The New Buick Electrical System

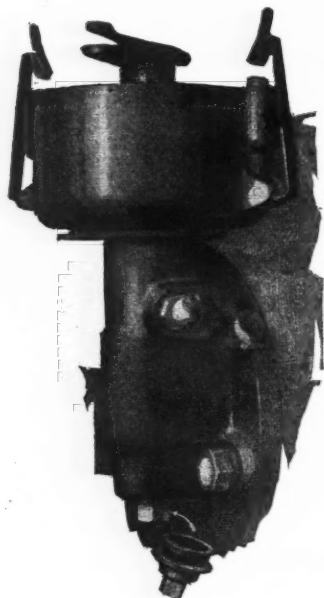


Fig. 4
Ignition unit showing timing adjusting screw and cap

FOR more than ten years automotive electricians have been familiar with the Delco type of motor generator used on Buick cars. Now a change has been made as described in the July 30, 1925 issue of *MOTOR AGE* and the forehanded trouble shooter will file away for future reference all information he can get on the new system.

In Fig. 1, the electrical circuits are shown for the Master Six, the circuits for the Standard Six being the same except that there is no tonneau light and no pillar light. The starting circuits are conventional in that the live battery terminal is connected to the starter switch. The switch, however, is mounted directly on the starting motor as shown more in detail in Fig. 2.

On the starting motor shaft is a pinion which is brought into mesh with the flywheel ring gear by the operation of the starter pedal. After the pinion has been brought into mesh further motion of the starting mechanism operates the starting switch. This construction makes it practically impossible to put any strain on the ends of the flywheel or pinion teeth, for it is only after meshing has been completed that the starting circuit is closed. In Fig. 2, it will be seen that a roller clutch is incorporated in the starting motor so as to prevent damage to the armature in case the driver of the car does not release the starting pedal as soon as the engine starts.

Referring again to the wiring diagram at Fig. 1, it will be seen that from the live starting switch terminal a connection comes to the ammeter and from the

Two-Unit Delco Electrical System, Used for the First Time on This Car, Contains Details of Interest to the Shop Electrician

other ammeter terminal connections go to the generator cutout and to the No. 1 terminal of the lighting and ignition switch. Turning on the ignition allows current to flow through the ammeter to the coil and here we have a departure from the old motor generator system, for the ignition can now be checked up by means of the ammeter current without the necessity of disconnecting the two small wires from the motor generator. The operation of the lights is similar to that on other Buick cars except that the dimmer switch is a separate unit, controlled by a lever at the center of the steering wheel.

This switch serves to send current to either one of the two filaments in the head lamp bulb, these bulbs being the new Mazda type No. 1110 which have two bright filaments, one used for normal driving and the other to deflect the normal light beams in a downward direction when passing other vehicles. The ignition circuit is conventional, the interrupter being equipped with a con-

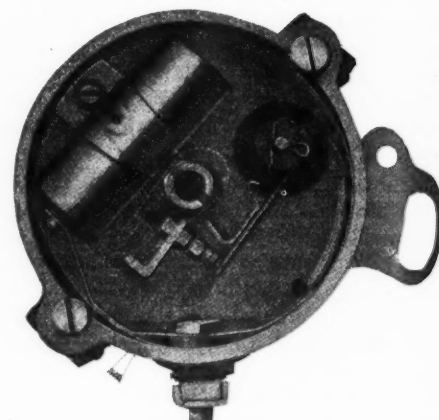


Fig. 3
Interrupter showing breaker point adjustment and replacable condenser

denser easily replaceable should occasion require. The generator is of the third brush type and carries the ignition unit. The interrupter construction is shown at Fig. 3 and the ignition unit mounting and location of the timing adjusting screw is shown at Fig. 4.

Ignition

The ignition is timed by fully advancing the spark lever on the steering wheel. The valve cover is then removed, so that the valve action may be noticed. The engine is then turned over by hand until the intake valve in the No. 1 cylinder closes. The rotation of the engine is then continued until the 17-degree mark on the flywheel rim is in line with the mark on the edge of the opening in the flywheel housing, as shown in Fig. 5. It is then necessary to take off the dis-

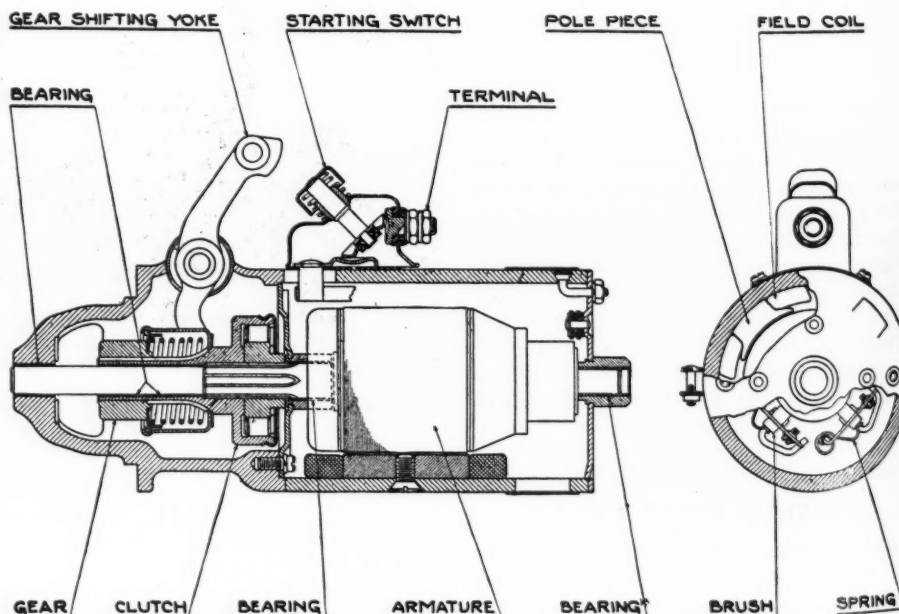


Fig. 2—Sectional view of Delco starting motor used on Buick

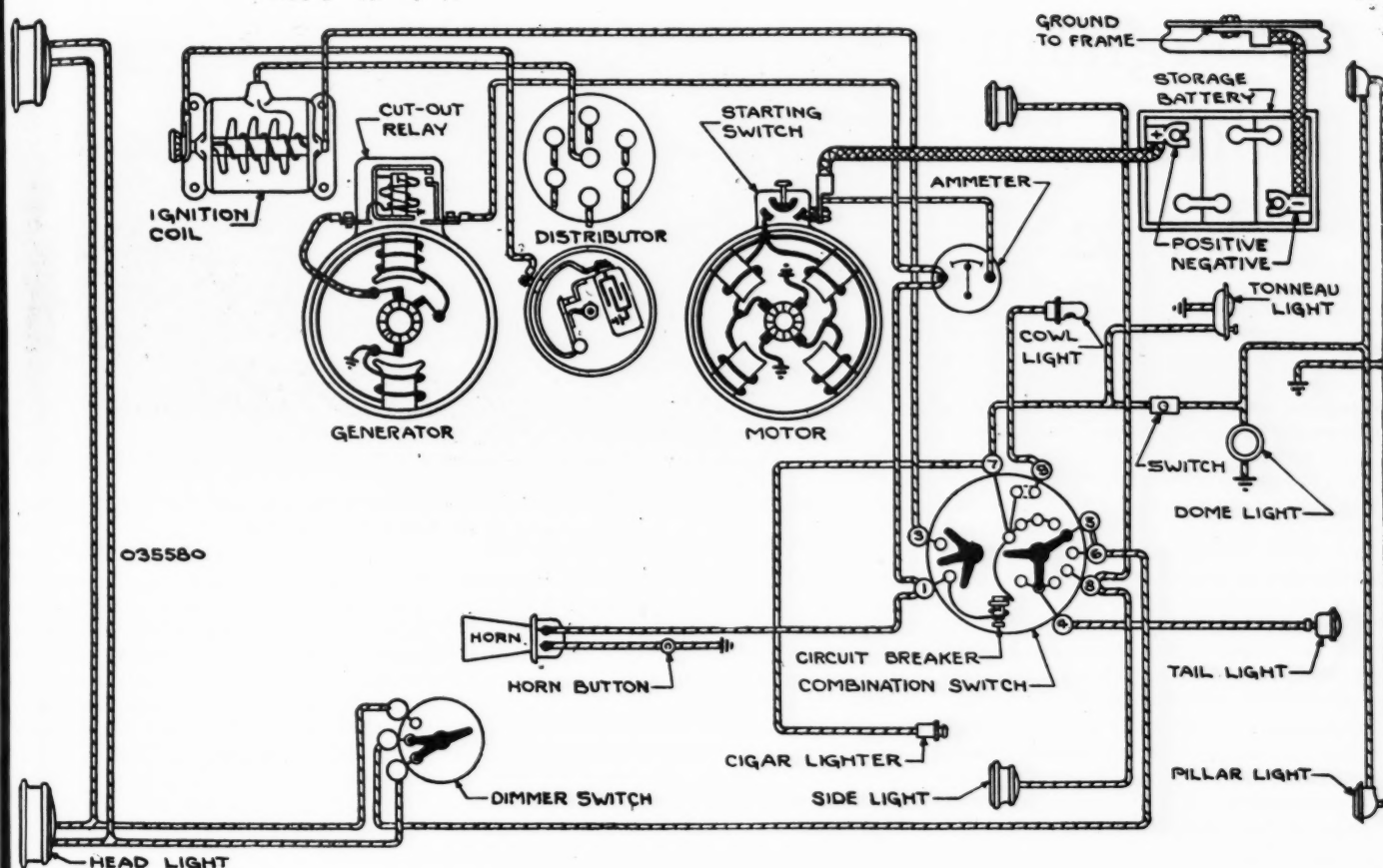


Fig. 1—1926 wiring diagram for Buick Master Six (Standard Six the same but no tonneau or pillar lights used).

tributer head and remove the hex cap at bottom of distributor housing as shown at Fig. 4. The timing adjusting screw with the hex head at the lower end of the distributor shaft is then loosened so that the rotor turns freely. Then turn the rotor until the breaker arm is on the nose of the cam and adjust the breaker points to .020 inches. Set the rotor in a position approximately on the No. 1 contact button and tighten timing adjusting screw slightly, so that rotor

does not turn freely. Turn rotor backward until the contacts are just closing on the front side of No. 1 lobe of cam. Turn rotor forward to take out movement of automatic advance. Hold rotor in this position by hand while completely tightening the adjusting screw at the bottom of the distributor. Replace the hex cap and the distributor head. The spark plugs should have a gap of .025 in. The firing order is 1-4-2-6-3-5.

Lubrication of the generator is taken

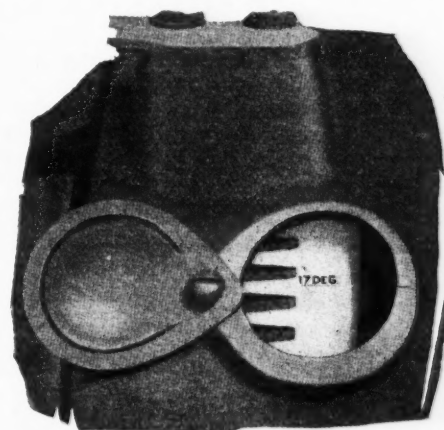
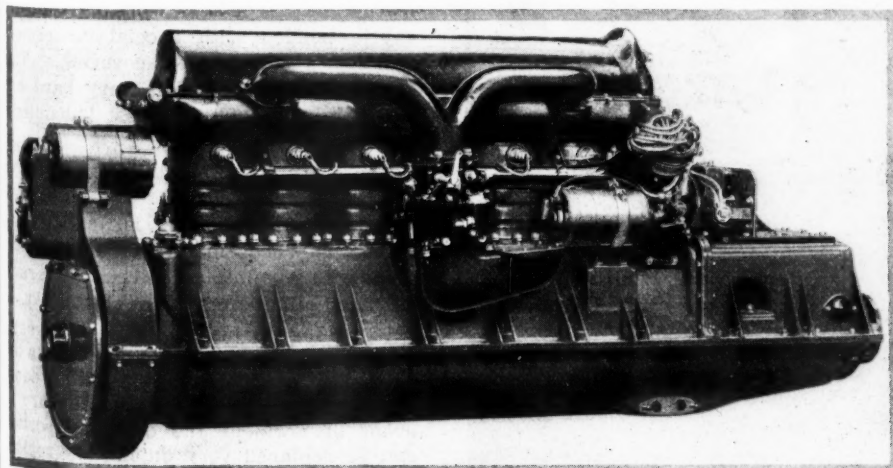


Fig. 5
Flywheel setting for timing ignition in advance position

care of by means of an oiler which requires a few drops of engine oil every 500 miles. This oiler is at the rear of the generator. A Zerk connection is provided on the distributor housing and should receive attention every 500 miles. The track in the distributor head should be greased with a small amount of vaseline jelly two or three times during the first 2,000 miles of driving. The track will then become glazed and thereafter it is only necessary to wipe out the distributor head with a clean cloth. A small amount of vaseline jelly should be applied to the surface of the breaker cam each 1,000 miles.

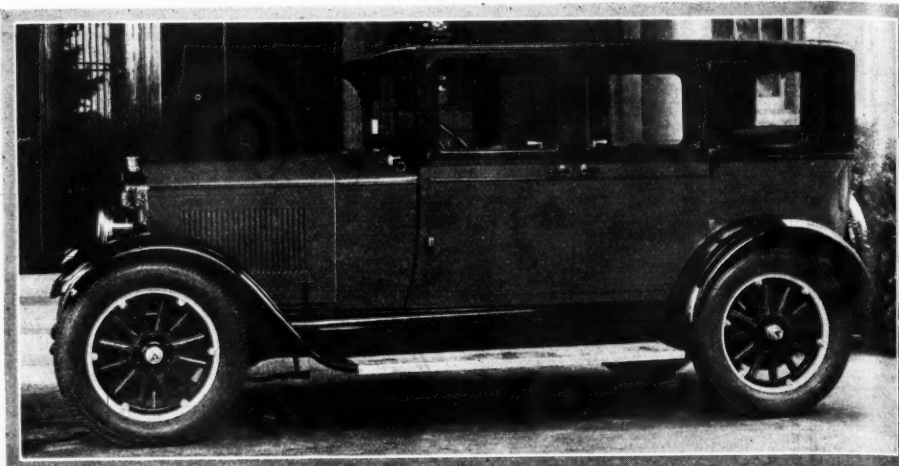


Marine Engine Now Being Produced by the Packard Motor Car Co., Detroit. This Engine was Developed From the Company's Model 1500 Aviation Engine and Develops 260 h. p. at 2500 r. p. m. The Six Cylinder Engine Sells For \$6,000 and the Twelve-Cylinder For \$12,000

Brougham Added by Velie

VELIE Motor Corp., Moline, Ill., has added a new body type, to be known as the brougham, to its regular line. The brougham has four doors and accommodates five passengers. A single moulding extending from the radiator shell joins a double moulding at the cowl, giving a pleasing stream line effect. Body finish is of two-tone Duco, while the fenders are brilliant black. The upper back is finished in black leatherette in contrast to the gun metal gray of the body below the moulding. A curved visor, a continuation of the roof line; cowl lights, full nickel radiator shell and four-barrel radiator, lend a distinctive appearance to the car.

Upholstery is of gray corduroy with velour trimming. Rear quarter windows are operated by Clement single lift regulators, door windows by regulators of the Dura four-turn type. The



Velie Brougham Which Is Mounted on the Standard Chassis and Has a Rather Novel Arrangement of the Belt Line Moulding

windshield is of the one-piece, ventilating type. Doors are provided with Eastman chain door stops.

Instruments are grouped in a glass covered satin silver oval panel, giving the instrument board a clean cut appearance. This panel is illuminated by a cleverly concealed lamp, contained within the panel itself. The ignition switch is located at the left of the steering post in balance with the choke plunger

to the right of the post. All light controls are operated by a lever located on the steering post along with the gas and spark control levers, all of which are of the finger type.

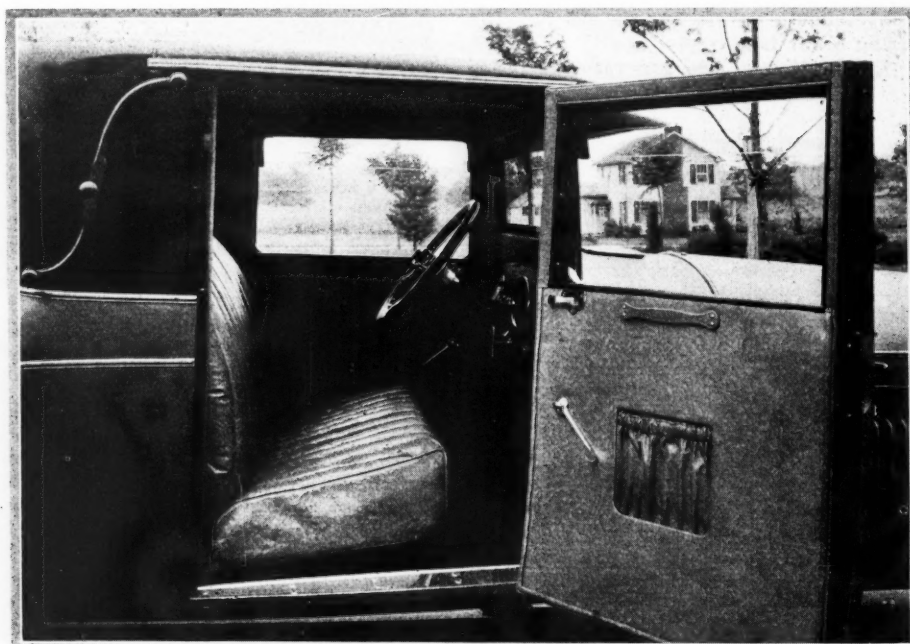
The new Velie brougham body is mounted on the standard Velie chassis. Standard equipment includes full 6 in. balloon tires and Lockheed hydraulic four-wheel brakes, has rear view mirror and automatic windshield wiper.

Construction Details of Apperson All-Weather Glove Finish Body

ADDITIONAL details are available at this time, concerning the Apperson all-weather glove finish fabric body construction recently announced and described in the July 16 issue of MOTOR AGE.

Fabric body construction necessitates

a strong framework, built of selected hardwood, properly dried, carefully machined, and carefully glued and screwed together, with generous forged irons at all points where strength is required. This is very similar to the regular type of construction sheet steel bodies.



Interior of the Apperson All-Weather Glove Finish fabric coupe roadster. Part of the fabric on the body panel is visible

However, instead of covering this prepared framework with sheet metal, as has heretofore been customary since the abandonment of wood panels on automobile bodies, Apperson uses a covering of expanded steel similar to that used in reinforcing concrete. This metal lath is set in rabbets and securely nailed.

Over this wood framework covered with expanded steel, is stretched one layer of cotton sheeting and a heavy layer of cotton wadding, which is then covered by stretching a piece of canvas tightly over both. This is then covered with "Meritas" leather cloth, a material made especially for this purpose and is different from the ordinary imitation leather in that it is two-ply or laminated fabric bonded with special oil cement, making a waterproof covering. This Meritas cloth coating is very hard and will retain its lustre almost indefinitely, it is stated.

There are many points in favor of this type of construction, the Apperson company states. It is equally as strong as sheet metal; it is quiet, reducing to a minimum all interior rumbles, and eliminates rattles or squeaks.

It retains its lustre under all climatic conditions—dust and mud do not mar the surface, it can be wiped off with a damp cloth without impairing the finish. In event of accident the damaged portion can be replaced very quickly by replacing the damaged panel with a new section of material. To facilitate this operation, the panels are applied in sections joined together with semi-concealed moulding.

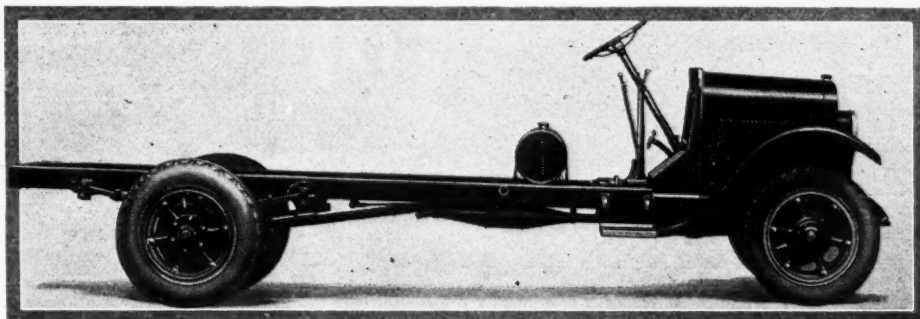
New 2-Ton Federal Truck With Knight Engine Announced

PROMPTED by the success of the Knight-engined one-ton truck, the Federal Motor Truck Company has just produced a new two-ton Federal-Knight listing at \$1650.

Besides incorporating the sleeve-valve engine and other modern features such as a full floating rear axle and full pneumatic tire equipment not found in the former one and a half to two ton truck manufactured by this company, the new model is capable of handling loads up to 4000 pounds in excess of body weight at a constant high road speed. A standard wheelbase length of 144 inches allows a loading space back of the seat amounting to 119 inches, while for special work a 156-inch wheelbase chassis can be supplied. The weight of the standard chassis is 3,000 pounds.

From the 3 5/8 by 4 1/2 in. bore and stroke Knight sleeve valve engine of 21 rated h. p., drive to the gearset is through a 10 in. single plate Borg and Beck clutch and a three-speed gearset.

A two-piece tubular propeller shaft with three metal type universals connects the powerplant with the Timken heavy duty, full floating, bevel gear rear axle providing a standard gear ratio of 6 3/7 to 1. The differential is carried on heavy tapered roller bearings inside



Side view of the Federal 2-ton chassis, equipped with the Knight sleeve valve engine and which lists at \$1,650

the pressed steel housing which is fitted with two axle bearing mountings on each side. In line with the policy of the Federal Truck Company, this model also can be supplied with a worm drive rear axle if desired.

Both service and emergency brakes which operate on the rear wheels are of the internal expanding type and operate on 16 in. dia. drums having a face 2 1/4 in. wide. The front springs are 38 by 2 1/4 in. while those on the rear are 52 by 2 1/2 in.

Mounted on six spoke cast steel wheels with demountable rims, standard tire equipment includes 30 by 5 in. pneumatic cords on the front with 32 by

6 in. on the rear. For a slight additional charge oversize are also available while if desired solid tires can be had if a worm type of drive is ordered.

Fuel is fed to the thermo-syphon cooled engine by a vacuum tank from a 15 gallon cylindrical tank mounted on the chassis frame under the seat position. Standard equipment includes hood, front fenders and step, dash and toe boards, Alemite chassis lubrication system, oil pressure gage, speedometer and tools. Included in the electrical system are generator, starter with Bendix drive, motor driven horn, head and tail lamps, ammeter, and heavy truck type 18-plate battery.

LACQUER SHOP NEAR FINISH

TOLEDO, Aug. 22.—The plant of the new Poly-Arts Spray Shop, Inc., capitalized at \$100,000, now being built on Detroit avenue, is rapidly nearing completion. Preliminary operations have already been started. The company will put into operation the new spray guns of the DeVilbiss Manufacturing Co. for applying lacquer finishes to automobiles and other articles. Temporary plant is in the old Ames-Bonner Brush Co. building in West Toledo. Isaac Kinsey, Jr., son of the late Isaac Kinsey, who was long a leader in affairs at the Willys-Overland plant, is president of the new company.

WILLYS BUILDS IN OAKLAND

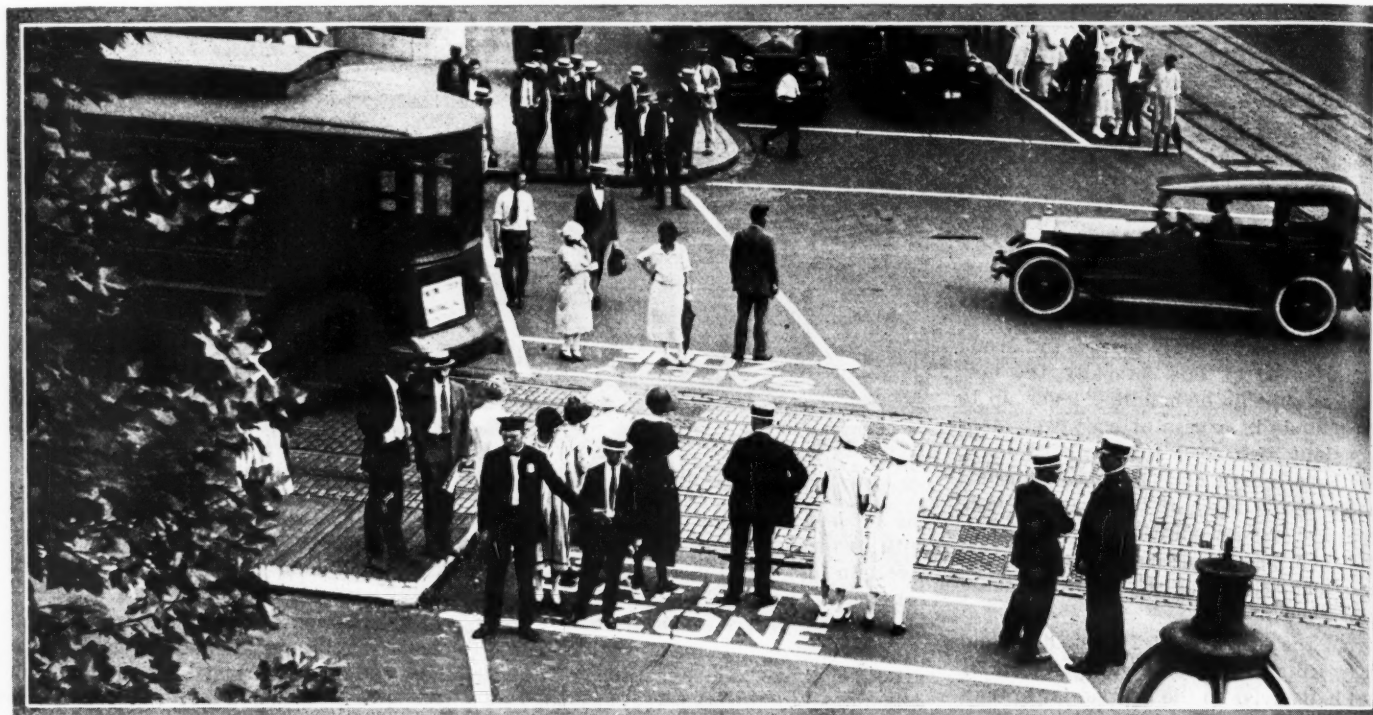
OAKLAND, Cal., Aug. 22.—Ground has been broken and construction started on the first unit of the large distributing plant to be built here for Willys-Overland, Inc. The new building, covering 88,000 square feet of floor space, is to be ready for occupancy October 1. It will be of brick, reinforced concrete and steel, of the latest "sawtooth," all-day-light construction.

Diana 8 Wheel and Dash Layout



The all-wood steering wheel seems to be the thing these days in automobile construction and there is no denying that the handsome walnut wheels found on many models today are a fitting accessory. At the left is the wheel used on the Diana Eight, together with a close-up of the oval panel containing the ammeter, oil gage, gasoline gage and speedometer.

MOTOR AGE'S PICTURE PAGES



SCHOOL DAYS. Safety Zone Crossing in Washington, D. C., where pedestrians are taught the Three R's in crossing street.

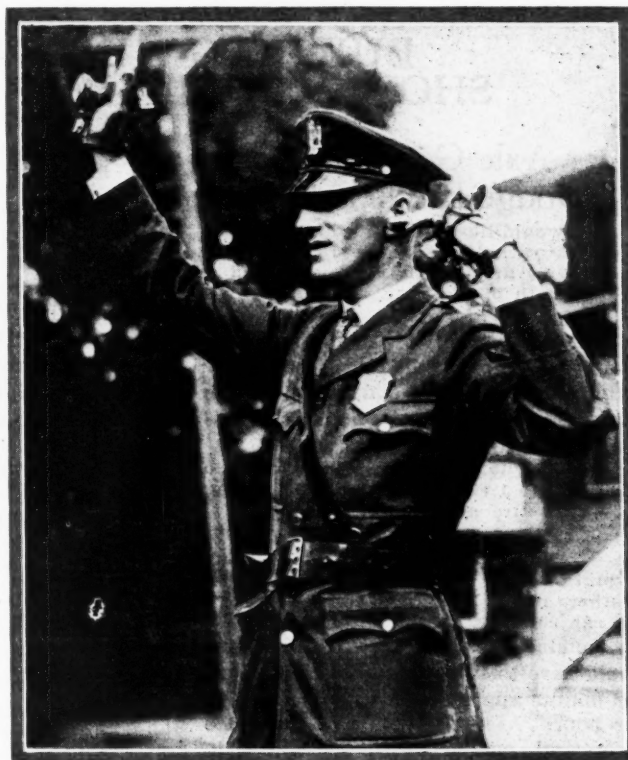


OVER THE LEFT FIELD FENCE. Gov. Fuller, of Massachusetts, swings mighty bat in ball game during Boston automobile dealers' clambake. The picture above shows one good reason why people attend clambakes. Gov. Fuller, incidentally is a Packard distributor and the big to-do pictured here was held at his summer home. Rye Beach, N. H.

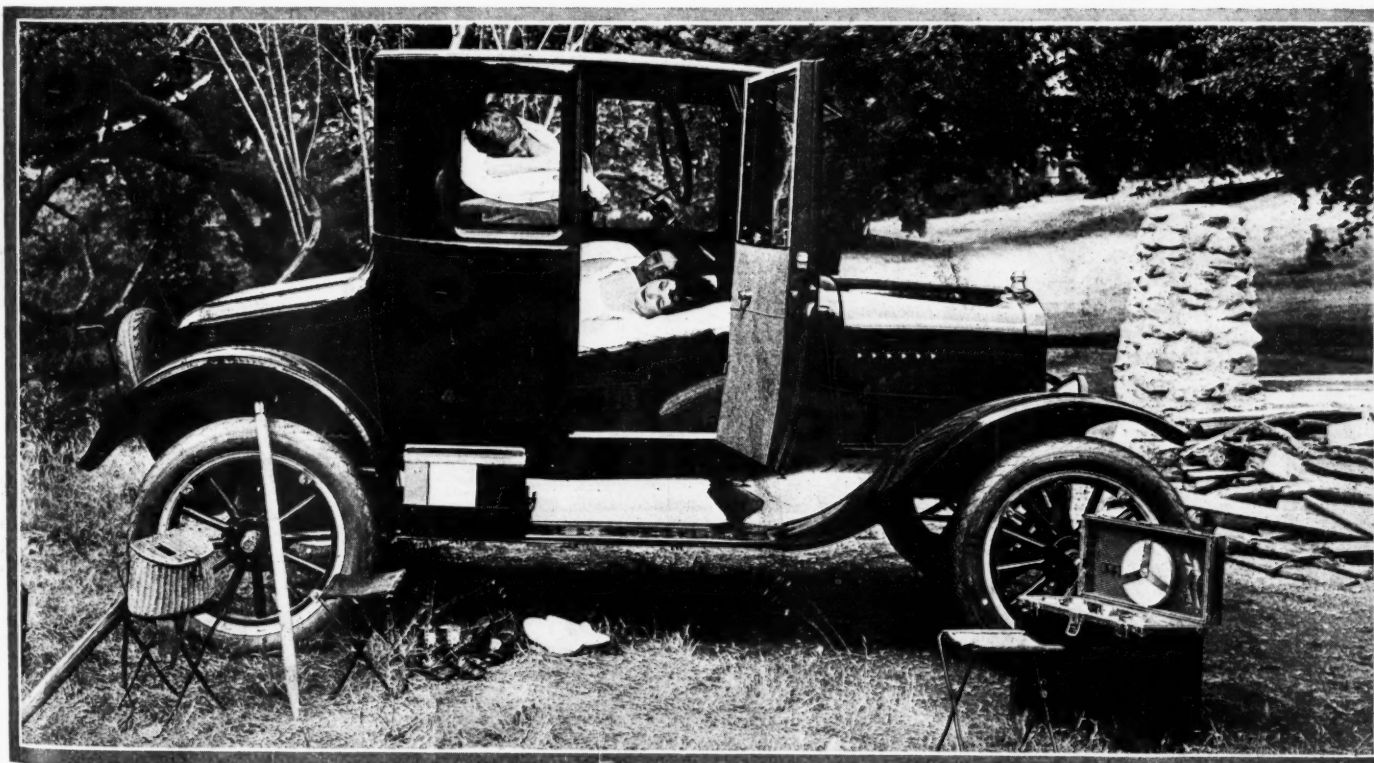
S OF AUTOMOTIVE INTEREST



FREE WATER—YES. Concrete drinking fountain helps draw business for gasoline station near Sacramento.



ALL LIT UP. Boston traffic officer equipped with signal light strapped to his hand. The light is operated on a small storage battery



ALL THERE BUT THE PORTER. These are not Pullman berths. On the contrary the picture shows how a Ford coupe can be turned into a camping bedroom by using a development manufactured by the Price Coupe and Auto Bed Co. of Los Angeles. The "upper berth" is big enough for a child. Two sleep below.

The READERS' CLEARING HOUSE

Questions and Answers on Dealers' Problems
BUILDING - ELECTRICAL - FLAT RATES
SHOP - LEGAL - PAINT & TRIM - ACCOUNTING

Rear Axle Gear Ratio on a Dodge Brothers Car

Q.—I would like to know what would be the gear ratio of a Dodge Brothers car carrying a fifty tooth ring gear and a twelve tooth pinion gear, using a 28 by 4 wheel and tire?

The size of the tire is not considered when determining the rear axle gear ratio. In the case of a fifty and twelve arrangement the ratio would be 4 1/6 to 1 or 4.16 to 1.

2.—Also, what would be the gear ratio using a 3 to 1 ring gear and pinion using a 28 by 4 tire and wheel?

The ratio would be 3 to 1.

3.—I also would like to know how many revolutions per minute would a Dodge Brothers motor have to turn over to drive the car 90 miles per hour?

Assuming a 4.16 to 1 ratio the engine would have to turn over 4100 revolutions per minute approximately to do 90 miles per hour. Assuming a 3 to 1 ratio the theoretical engine speed necessary to make 90 miles per hour would be 3275 revolutions per minute.

4.—What would be the best gear ratio to use on a Dodge Brothers tuned up for racing on a half-mile dirt track?

The best ratio is determined only by actual try out. We would suggest that it be not lower than 3 7/8 to 1 and not higher than 4 1/4 to 1.

5.—I would like to have a diagram for attaching an oil pump to a force feed oil-

ing system on a Dodge Brothers car that you published some time previous in MOTOR AGE. Would pay for issue containing this diagram as I have looked through MOTOR AGES and cannot find this issue.

The issue in question does not cover installation of an oil pump as it was assumed that the reader would use the regular eccentric pump used on the stock Dodge Brothers car. The diagram showed a method of connecting the system after the crankshaft has been drilled. We are sending you the page from the issue mentioned which contains the diagram and directions.

6.—I would like to know also what speed does a magneto turn over in relation to the motor speed.

On a four-cylinder engine using conventional two spark magneto the magneto armature turns at crankshaft speed. On the six cylinder one and one-half times crankshaft speed and on an eight cylinder, twice crankshaft speed. This ratio is necessary because the number of sparks required per revolution will be one-half of the number of cylinders and as the magneto delivers two sparks per revolution the ratio must be so arranged that the magneto will deliver a spark to one-half the number of cylinders at each revolution of the crankshaft.

7.—At what speed does battery turn over in relation to motor speed?

Your question is not clear, but we assume you refer to the relative speed of a battery ignition system camshaft in which case the camshaft always travels at one-half crankshaft speed.

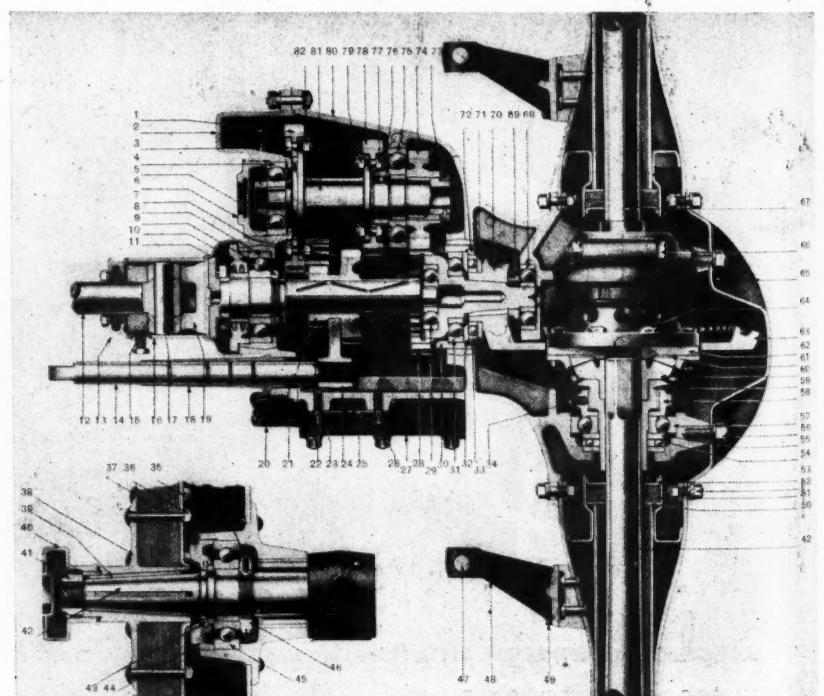
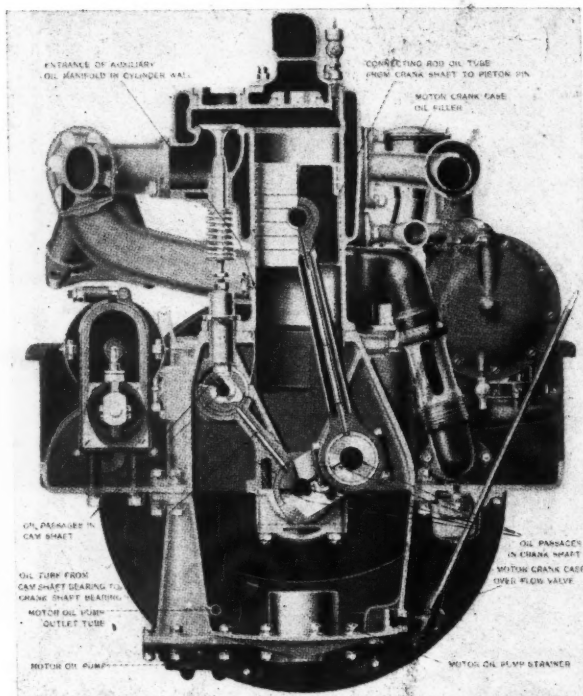
8.—Does a breaker shaft turn over any faster in a magneto than it does in a battery ignition system?—Merle Nelson, 329 Reynolds street, Springfield, Ill.

On four cycle engines used in motor cars the armature of the magneto turns faster than the camshaft or armature shaft of a battery ignition system.

A 1914 PACKARD FOR TOWING

Q.—Could you furnish me with details of the 1914 Packard six rear axle and transmission, also details of the engine as I think one of these cars would make a splendid tow car.—Robert H. Ludington, 597 1/2 Dundas street, Woodstock, Ont., Canada.

The transmission being mounted on the rear axle, we are showing a cross sectional view which gives details of both units. We are also showing an end sectional view of the engine which indicates the path of the oil in the lubrication system. Oil is pumped to the hollow camshaft which acts as a distributing manifold. The oil is then distributed to the main bearings and through the crankshaft to the connecting rod bearings. Oil ducts in the connecting rods then carry oil to the piston pins.



Above: Transverse sectional view of 1914 Packard engine; right: Axle and transmission of 1914 Packard

Planning Your New Building

By TOM WILDER



Front Entrance to a Building on a Corner is Waste

Q. Kindly furnish us with plans for a building to be put on a lot 75 by 140 corner location. The front of the 75 foot space will be the main entrance, in other words it is from this direction that the general flow of traffic comes.

The showroom, offices, parts stock and accessories should be handled in the space as outlined in our rough sketch. We wish to provide space for showing about five cars. The accessory and parts department are not to be slighted, as we go into that quite extensively. The shop works about four men regularly. This building will have a full basement, with a ramp from the rear. Wash rack in basement. No boiler room will be required as the building will have city heat. All the space which will be available without crowding too much will be used for storage. Fleck Motor Sales Co., Bismarck, N. D.

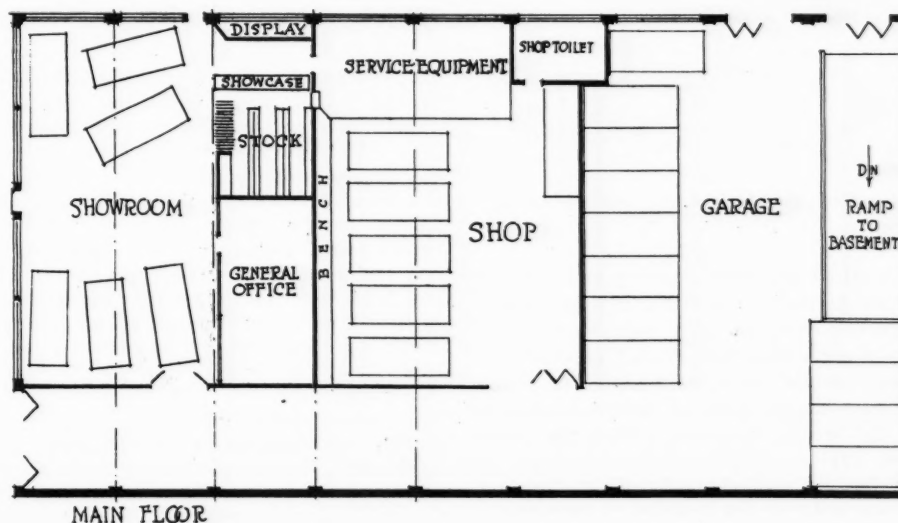
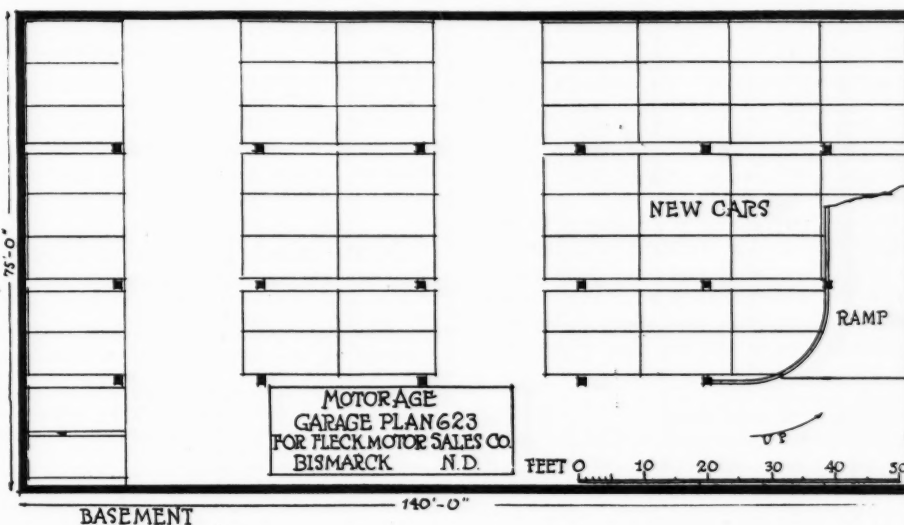
There is a great waste of space in this building caused by the entrance on the main street. Since it is on the corner, we see no reason why you should not use the side street as a means of getting to your garage and shop, giving over the whole of the frontage to showrooms, offices, and accessory sales. It is true that this drive-through idea with an entrance on the main street and an exit on the side street is very nice, but when we consider that about half of the length of the building and 15 feet of the width is given over to passage that might just as well occur in the side street, it would seem that some more economical use of the space would be preferred.

There is one advantage, however, in the layout we have made and that is that the shop, showroom, offices, etc., are all in one compact group where heating will be much easier and better than if the shop were separated from the rest. With this arrangement all the rest of the building is practically storage space and need not be heated above 40 or 50 degrees at any time.

In the small sketch you will note that we have made an entrance on the side street directly into the garage, but have left the exit the way we have arranged it in the large sketch. The shop is along the back wall and in order to save space a series of sliding doors are arranged just back of the car spaces. This makes a very good arrangement and we believe would be quite a space saver for you.

Why the Bearing Burns Out

Q. Advise why the rear main bearing on a Chevrolet model 490 persists in burning out. We have had new main bearings put in this car twice and the rear main bearing will burn out in a day or so. We understand that the front and rear main bearings are oiled by splash system and the center main bearing is oiled by pressure. Advise if it would do any good to bore a hole and groove the upper portion of the rear main bearing. Advise the proper way to install rear main bearings

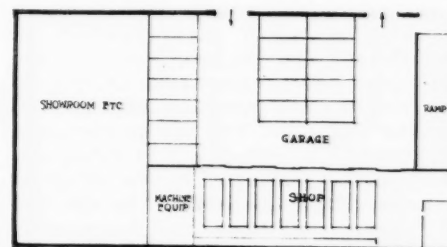


The Small Sketch Shows One Method of Eliminating a Front Entrance as Laid Out in Our Large Plan

in this motor to prevent the rear main bearing from burning out. Motor Inn Garage, Leeds, N. Dak.

Your mistake is apparently in failing to drill out a hole in the rear main bearing to coincide with the oil hole in the cylinder block. If you will examine the rear main bearing closely you will find that there is a sort of funnel construction in the casting just above the bearing which is intended to catch oil and feed it through a hole to the crankshaft. Accordingly the bearing should have a hole in it to register with this funnel and there should also be grooves cut in typical criss-cross fashion, so as to feed oil to all parts of the shaft.

The bearing cap also has a hole and is also grooved. The front main bear-



ing is constructed in similar fashion. It might also be well to check the crankshaft to see that it is not sprung, although failure to connect up the bearing with the lubrication passage doubtless accounts for the experience you have had. The use of a line reamer for finishing up the main bearings after they have been cast is a part of the recommended procedure, and together with straight shaft should give satisfaction.

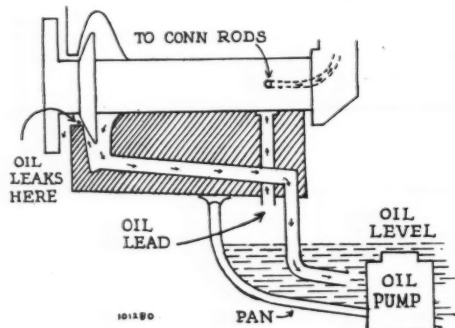


Defeating Old Man Wear and Tear

Persistent Leak at Rear Main

Q.—We sent you an inquiry by night letter in regard to an Oakland which throws oil through the rear main bearing and received a reply suggesting the use of an oil drain pipe. We installed a pipe in accordance with your suggestion but it did not improve the condition. We are sending you a diagram of this bearing and would like additional information if possible.—McKenney Garage, R. No. 5, South Tacoma, Wash.

We are publishing your sketch so that other MOTOR AGE readers will have a chance to see what you have done and to write you direct if they have any suggestions. We assume that there is no connection between the oil pipe which car-



Reader's sketch showing steps taken to prevent oil leak

ries oil to the main bearing and the one which is used for a drain. These appear to cross each other in your sketch, but we assume that they do not connect. If there should be a connection it would be easy to see how oil would be forced in the wrong direction. With the force feed system connected at the front of the bearing and excessive oil leaking out of the rear of the bearing it apparently shows a poor fit of the bearing to the crankshaft.

In making a thorough check it would be well to see if the crankshaft is straight and that the rear journal is not eccentric. Any appreciable amount of eccentricity will tend to enlarge the bearing so that oil will flow in excessive amounts toward the rear. In fitting the shaft to the bearing it is first fitted to the upper half and checked by the use of Prussian blue and then the bearing cap should be fitted in like manner until you have a very nearly 100 per cent bearing surface.

As a tight fit is not permissible with pressure lubrication it is even more desirable to use a mandrel made .0015 to .002 in. greater in diameter than the rear journal of the crankshaft. A chance for leakage always exists where the rear main bearing cap makes contact with the upper half of the bearing. On some cars babbitt lined shims are used which butt up against the shaft to prevent leakage

along the crack between the shaft and the upper part of the bearing. It is certain that if any appreciable amount of oil leaks from the rear of the bearing that oil is rapidly flowing along the shaft or else that the drain is insufficient to take care of it.

Another possibility that occurs to us is excessive leakage of explosion pressure past the pistons which maintains pressure in the crankcase and prevents the oil drain functioning.

Now and Then a Miss

Q. We are having considerable trouble with a 1925 Maxwell Sedan with mileage of 450. After running from six to ten miles or when the engine gets thoroughly warmed up the motor starts to miss on Nos. 2 and 3, not regularly but intermittently, sometimes every 50 yards and then 100 and then 200 yards. Have changed plugs, coil, carburetor, vacuum tank and distributor. The engine runs well when cold and until it gets hot. Have had head off and touched up the valves, checked the valve stems also the seat, for clearance. Also checked the wiring for loose connection. Can you offer a solution or suggest a remedy? C. D. Robbins, 48 Smith street, Winnipeg, Man. Canada.

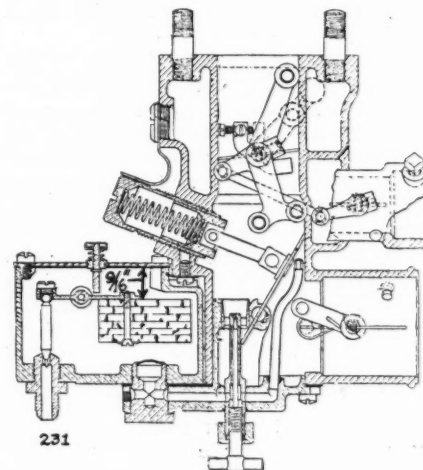
We would recommend your checking the spark when the engine has become heated to the point where missing occurs. You can remove a wire from a plug and hold it about 3/16 inch from the engine and run the engine at about the speed at which missing is noticed. Listen to the spark, using a tube of brown paper rolled up if necessary with one end held to your ear and the other end held near the spark. If the missing is found to be due to the spark failing every now and then, it is possible that there is a poor connection in the ignition switch.

A poor connection in the ignition switch can sometimes be detected by having the interrupter points touching and turning on the switch and watching the ammeter. The hand should show a steady discharge, but if the needle flickers it indicates a poor connection somewhere in the circuit. High resistance is sometimes encountered where the ignition unit sets in the socket of the engine. This does not usually give trouble on new cars but sometimes on old cars where the grease and dirt form an insulating film and prevent the ignition unit being well grounded. As the condition occurs when the engine gets hot it is possible that the clearance between the valves and tappets is not sufficient, and this should be checked when the engine is warmed up. It is also possible that a valve stem sticks when hot. You might get some idea of the condition by cranking the engine by hand so as to feel the compression when the engine is hot. Another possibility is that there is an air leak in cylinders No. 2 and 3 when the intake manifold is at a high temperature. This could be checked by squirting gasoline on the intake manifold gasket.

Alloy Steel Stands High Temperature

Q.—In regard to burnt valves on a Maxwell car want to tell you that your remedy proved a success. I reamed out the valve guides just enough to remove all foreign matter and enlarged the oiling holes in the crankcase one-eighth of an inch which proved to be the remedy on this car. Now I have one more question. I understand there is a valve on the market that the manufacturers claim will stand twice the heat without warping that the ordinary valves do. Would you recommend these valves for cars that are inclined to burn their valves. What company makes these valves.—A Reader.

It is contrary to the policy of MOTOR



Marvel carburetor on 1916 Oakland

AGE to recommend any particular item of automotive equipment. It is possible, however, that you refer to certain valves which are made of alloy steel, which material would stand a high temperature. Names of concerns making alloy steel valves will be given by separate letter.

Using Ammeter Shunt

Q.—When a 0-16 voltmeter is connected to a 100 ampere shunt and the needle is on the figure 2 what is the proper reading.

This does not mean anything as a voltmeter is not supposed to be used with a shunt.

When a 0-100 millivoltmeter is connected the same way and the needle points to figure 2 what is the proper reading.—Charles Tuckfeld, North Branch, N. Y.

If the ammeter shunt is designed to be used with the millivoltmeter then it means that 100 amperes flowing through the shunt will cause the millivoltmeter to read full scale deflection. Accordingly with the needle at the 100 point it means 100 amperes flowing through the shunt and with the needle at the figure 2 on the scale it would mean 2 amperes flowing through the shunt.

Clearing Up Electrical Troubles

EDITED BY A. H. PACKER



Testing for Reversed Coils in Rewound Armatures

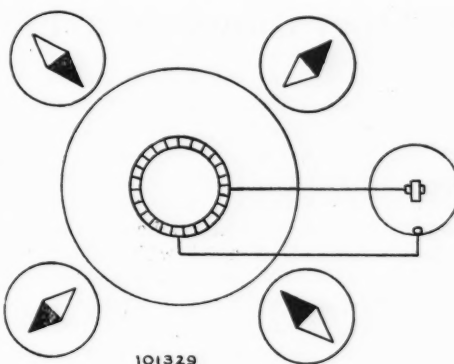
Q. We are having trouble in re-winding the Auto-Lite G. P. No. 2116 armature as used on the Overland four. The trouble we have here, the armatures when in the generator cuts in too slow or starts to charge at too high a speed. The cut in should be from 450 to 500 r. p. m. and the best we can get is 700 r. p. m. As far as we know we are winding it the same as the new armatures are wound, and we have checked the armatures several times, but cannot locate the trouble. Supply armature diagram and give possible causes of this trouble. We would like to have this information at once as we have discontinued winding until we find a remedy.

If you have any books with diagrams of the armature winding of all various types of armatures, please state the price. B. J. Holtcamp, 222 S. Locust street, Centralia, Ill.

We are showing the armature winding diagram for the Auto-Lite generator armature No. G. P. 2116, this information being obtained from the Universal Armature Winding Manual. Additional sources of supply on armature winding diagrams will be given by separate letter. The coils are wound clockwise, there being six turns of No. 17 single cotton covered enameled copper wire in each coil. There are two coils per slot wound together using wires of different colors. In order to clear the generator frame the winding must not project more than $\frac{1}{8}$ in. beyond the core. The last coil is the dead coil used to balance the armature only. The ends of this coil should be taped up and buried.

The most likely cause of trouble is incorrect winding and the diagram should help you on this. After the armature is wound, it may be desirable to check up to see that you have no reversed coils and that the magnetic poles are in the proper place. We are showing one showing one sketch which illustrates a method of checking for a reversed coil. Either one cell of a storage battery or a dry cell is used and connections are made to opposite ends of the same coil. You could start in by connecting from commutator bar No. 4 to commutator bar No. 14 which would give one of the coils. Most of the current would flow through this coil so that if the armature stood on end and a compass is moved around the armature, you will find a strong magnetic pole in one place.

Then the connection from the dry cell or storage cell should be shifted one bar, so that you next check from No. 3 to No. 15 bar. The polarity of the coil should be the same as the previous one as indicated by the same end of the compass needle being attracted. The points of attraction will be the same for coils in the same slot, but will shift the distance of one slot on the third test which would be from bar No. 2 to bar No. 16. In this



101329
Compass test on armature to check commutator connections

way the connections to the commutator will be shifted one bar at a time and the compass moved around as the test is continued. The same end of the compass needle should point toward the armature all the way around.

The other test is made by connecting a dry cell or one cell of a storage battery to positions on the commutator corresponding to the brush positions when the armature is in use. If the compass indication is weak it is possible to use more dry cells or more storage cells in series. The compass when moved around the armature will now show four magnetic poles and if the point of connection of the battery is considered as being the equivalent of the brush position, then the compass indications should point to a place on the armature corresponding to the neutral zone between the magnetic field poles. This will show that the armature is correctly connected so as to have the main brushes on neutral. About the only other possible reason for having the machine cut in late would be that insufficient number of turns are used in the armature, or that the armature has been turned down so that there is too large a gap between it and the field poles. In case the armature at some time or other had rubbed on the field poles it is possible that the laminations are shorted due to the edges being burred over. This would result in overheating after the armature is put in service.

SHORT CIRCUIT BETWEEN TWO SEGMENTS

Q.—I am a steady reader of Motor Age and find your questions and answers very interesting and helpful. I had a Ford come into the shop the other day which would run all right with the switch on the battery position. Whenever the switch was turned to the magneto position, however, it would lag and pound. The other mechanic and myself had an argument as to the cause of the trouble. He said it was due to the valves and I was almost certain it was in the commutator so I removed the commutator and found it in bad condition with a fine strip of one of

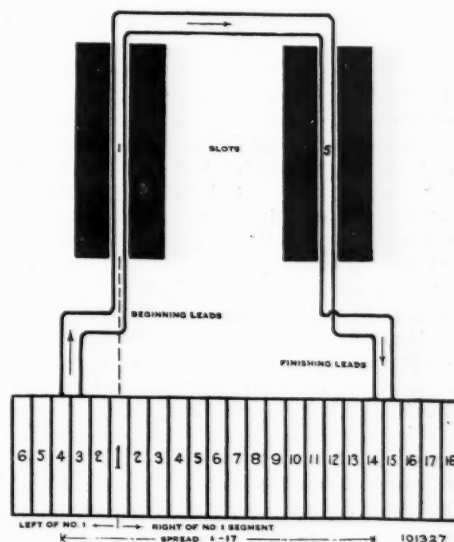
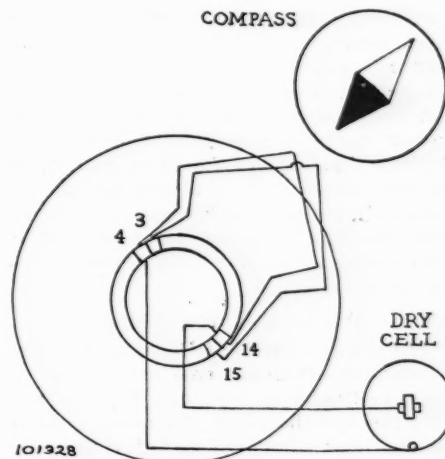


Diagram of Autolite G. P. No. 2116 armature



101328
Testing the rewound armature for a reversed coil

the segments across No. 1 and No 2 points. After installing a new commutator it worked fine. Why did it work on the battery side and fail to work on the magneto without moving the spark lever in either direction?—S. C. Thomas, c/o Automotive Repair Co., 7001 Kelly boulevard, Pittsburgh, Penn.

The voltage of the battery current is approximately constant while the voltage from the magneto is not only alternating instead of direct but it also varies with the speed. From what you say we assume there was a sort of short circuit between two of the segments. It is possible that this connection was not perfect and that when operating on 6 volts it did not act like a short circuit. The Ford magneto on the other hand develops a higher voltage, which may have sent enough current through the short circuit to cause trouble.



Motor Age's Flat Rate Forum

EDITED BY B. M. IKERT

Monthly Operations at a Flat Price

IT IS, of course, perfectly possible to sell car owners on the general application of the flat rate system, but the one big point many dealer establishments and shops in general are overlooking is the selling at a fixed price a monthly inspection and adjustment service. Such a group of operations when properly selected constitute what often is called "Preventative Service" and simply means that if these things regularly are done by the dealer to the customer's car, such a car will perform better over longer periods of use before major service or repair operations are necessary.

The public is motor-wise enough to know that cars cannot operate indefinitely without attention of some kind. Carbureters have to be adjusted; tappets must be taken up occasionally; strainers will get clogged and must be cleaned; the water gets low in the battery; brakes need adjusting and body squeaks will occur.

Although the makers of motor cars have made it much easier for the car owner to perform some of the more simple service operations, most owners are not systematic in their work and would rather spend a few dollars letting the dealer's service department or some shop do the work. It's a messy job to fill differentials and universals no matter how you look at it and not a car owner who would not rather have someone else do the job for him.

Weak on Merchandising

The trouble has been that too few automotive establishments have properly merchandised such service. A car owner gets the idea he must pay quite a price for such operations as he ordinarily performs himself, but if his attention is called to a definite price covering certain jobs on his car he is pretty apt to have

the work done at the service station or garage rather than attempt it himself.

Just the other day a car owner cited a case to us. He said he did a little work on his car which a service station could have done in a few minutes but which took him about an hour. On top of this he ruined a \$4 white shirt, so all told the job cost him considerably more than it would had he taken it to the service station. He made the remark that had he been told or seen advertised a flat price for the job in question he surely would have never attempted it.

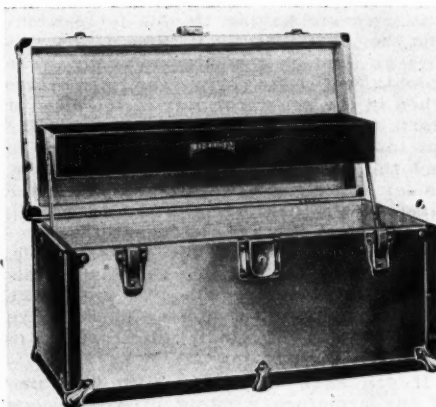
Often a car owner starts to lubricate his car, that is, fill the differential, transmission, etc., and then finds out he either has not the kind of lubricant necessary, a gun for forcing it in, or other work which he did not figure on manifests itself. Then the car goes to the service station, where it should have gone in the first place.

All of this suggests a schedule of operations which every dealer or shop can get up and sell at a flat price to car owners. It may not cover all makes, as it will be more on some cars and less on others. For example, one Chicago dealer recommends that the following service is necessary each month for the good performance and economic upkeep of the car he sells. If contracted for the service costs \$9 per month and includes:

1—Tuning engine.

Adjust tappets; adjust carbureter; adjust ignition; adjust water pump; adjust oil pump; adjust fan belt; adjust manifold; clean plugs; clean commutators; clean vacuum tank; clean strainer to carbureter.

2—Adjust brakes.



THINGS THAT HELP FLATE RATE

A place for everything and everything in its place works out just as well in using flat rate as anywhere else. A tool chest for each mechanic insures an orderly shop and makes possible finding a tool when necessary. If a tool is kept in a certain place a mechanic always knows where to find it and anything which saves time is a decided asset in using flat rate.

- 3—Grease and oil (grease and oil included).
- 4—Adjust steering.
- 5—Align wheels
- 6—Inflate tires.
- 7—Inspect battery.
- 8—Adjust shackles.
- 9—Tighten body bolts.
- 10—Take out rattles and squeaks.

Using Flat Rate Manual

Pittsburgh, Pa.

To the Editor of MOTOR AGE:

Would you kindly send us by parcel post, C. O. D., three copies of MOTOR AGE's post, Flat Rate Manual as printed in your magazine of April 30, 1925. We have been using this guide continuously since its issue, and have had remarkable success with it.

Yours for "Flat Rate"

Automotive Repair Company.

QUEBEC CLAIMS BEST ROADS

QUEBEC, August 22.—Check-up of provincial roads by Government officers recently shows that 6,000 miles of improved highways throughout the province of Quebec provide farmers with the quickest and best transportation facilities to be found anywhere in the world. Over \$35,000,000 has been spent by the highways department during the past five years, and \$6,000,000 more is being spent in 1925 to insure pre-eminence as the tourist paradise in eastern North America. Good roads, historic mementoes and scenic beauties are being held out to the world as Quebec's main attractions.

MOTOR AGE'S FLAT RATE FORUM

No. 28

FLAT RATES FOR RICKENBACKER REAR AXLE OPERATIONS

| Manufacturer's Official Designation | | Time |
|---|---|---------|
| D-1 | General Overhaul of Rear Axle..... | 7½ hrs. |
| D-2 | Renewing Pinion Carrier..... | 4½ hrs. |
| D-3 | Renewing of Ring Gear and Pinion..... | 6 hrs. |
| D-4 | Renew Differential Gear and Spider..... | 4½ hrs. |
| D-5 | Adjust End Play, Back Lash, Renew Hub Felt and Retainer, Axle Shaft and Bearings..... | 3 hrs. |
| D-6 | Renew Rear Axle Housing..... | 9 hrs. |
| D-7 | Renew Rear Wheel (each includes)..... | 1 hr. |
| D-8 | Remove End Play in Rear Axle Pinion..... | 1 hr. |
| D-9 | Renewing Rear Axle Differential Carrier Gasket..... | 2½ hrs. |

THE MARKET'S NEW OFFERINGS

Accessories—Equipment—Supplies

Rear Fender Bumper for Fords

AN accessory which is said to be constructed along practical and scientific lines for long efficient service is found in the No. 09 Rear Fender Bumper for Fords, offered to the trade by the Kentucky Wagon Manufacturing Company, Louisville, Ky. In construction this bumper is similar to the company's earlier product, the No. 08 "KYW" Medium Balloon Fender Bumper except that the No. 09 has special Ford connections. The manufacturers say it is rigid and firm, yet resilient, having good design and adding to the appearance of Ford cars. The No. 09 lists at \$14. The company makes a number of other bumper models and will gladly furnish details to any dealer applying for information.



Fender bumper for Fords

Nestler's Tube Compound

THE Nestler Rubber Fusing Company, 245 West 55th Street, New York has brought out a self-sealing compound for use in the inner tube. The compound is injected into the tube through the valve stem and is effective, it is claimed, in instantly sealing holes not larger than 1/8 in. in size as well as cementing porous places and leaks around the valve. Injection is accomplished with a hand pump after removing the valve inside. The makers guarantee the produce not to injure tire, tube or valve while it will not loosen patches. The substance comes packed in two sizes of cans, a one pint size for 4½ and 5 in. tires, retailing for \$1 and a half-pint size for 3½ and 4 in. tires, retailing for 55 cents.

Dains Nu-Matic Bumper

ACCESSORY dealers will observe a departure from the more conventional bumper practice in the Dains Nu-Matic Bumper which recently was placed on the market. This is a product of the Dains Nu-Matic Bumper Company which has offices at 628 Main Street, Peoria and a plant also at that address.

The outstanding feature of the Dains bumper is its air and oil cylinders which provide what is said to be unusual cushioning service. It has an oscillating vibrating tubular shock frame with sufficient flexibility to absorb shocks from heaviest impacts. The device is made in three sizes, for the light car, the heavy car for trucks and buses and can be used on any car made.



Tria Horn

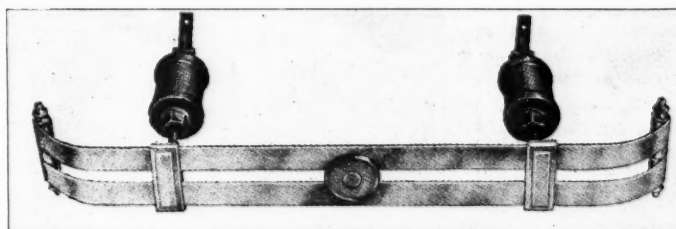
Bouncing Balloons Are Not Enough

A striking advertisement issued by one of the large agencies conveys the thought that there is a difference between the "clever" ad and the "selling" ad.

The same might be said of the "clever" window display and the "selling" window display.

Not long ago an accessory merchant who deals in tires sought to attract attention by putting in the window a number of toy balloons which were kept moving with electric fans. A sign said something about balloon tires but the comment was drab, offering no especial appeal, and the balloon tires in the window only suggested that they were balloon tires.

One purpose of the show window display is to attract attention. This accomplished its next shot is to capture buying interest. The public is aware that the trade sells balloon tires but it does not know what especial buying benefits can be found at some particular store. The clever window display even, should have tie-ups stressing these benefits.



Dains' Nu-Matic bumper

The Tria Horn

THE Tria Horn which is made in Berlin, Germany, is being distributed in the United States by Isotta Fraschini, with offices at 785 Fifth avenue, New York, and a western distributing establishment at 2427 South Michigan avenue, Chicago. Orders for the horns are received at either of these addresses. This is a horn which is said to be especially well designed to give long service and produce a far-reaching pleasing double tone fog horn sound. It mounts to best advantage on the dashboard under the engine hood, the distributors furnishing full installation instructions. List price \$38.

Instant Spark Plug Cleaner

AN interesting automotive product is found in the Instant Spark Plug Cleaner which recently has been placed on the market by The Trindl Company, 2917 S. Wabash avenue, Chicago. Twenty seconds is all the time necessary, it is stated, for this device to clean a spark

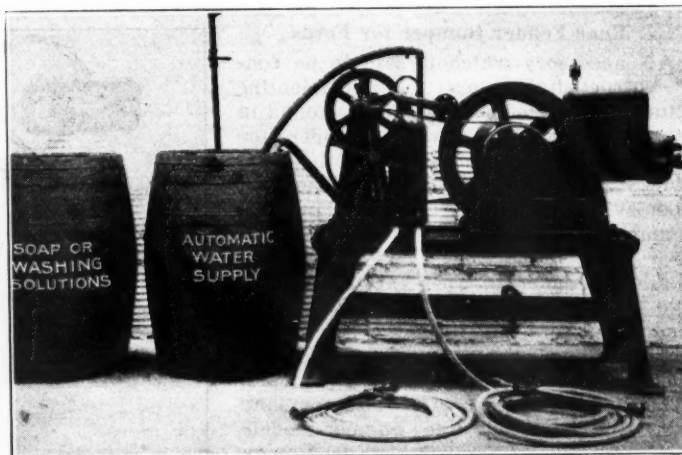
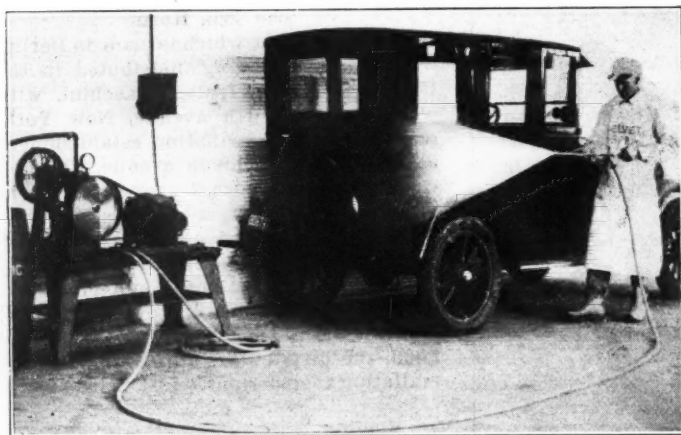


plug regardless of how badly it is fouled. The feat is accomplished without soiling the owner's hands. The cleaner is installed permanently in one of the petcock holes of the engine. For engines not having petcocks a special adapter is provided at a cost of 30 cents. The cleaner lists at \$2.50.

AC Air Cleaner for Dodge

AC SPARK PLUG CO., is now furnishing AC Air Cleaners, complete with all attachments, for the 1920 to 1925 models of Dodge Brothers cars and Graham Brothers trucks. A retail price of \$7 has been placed on the installations.

GETTING MORE OUT of the SHOP



Here Is Shown the Set-Up for the Speed-Spra. It Can Be Driven by Electric Motor or Gasoline Engine. Among its Features Is the Exceptional Fineness of the Spray

Speed-Spra For Washing Motor Car

Since it is being generally realized that a clean car is easier to work upon and that one of the most important steps in the refinishing of cars is the cleaning of them prior to painting, apparatus for cleaning chassis and bodies is being developed to quite an extent.

One of the most recent additions in this line is the washing apparatus known as the Speed-Spra, made by the Hayes Pump & Planter Co., Galva, Ill. To better understand how the Speed Spra works it must be understood it is driven by a 3 h. p. electric motor or engine, and delivers through the "Velvet-Spra" gun operated by the washer a broad, soft, soaking spray, or a strong, driving spray for use on the under side of fenders, chassis, etc.

In operation, the washer turns on the broad Velvet-Spra and goes over the entire car, soaking it thoroughly. That takes only 1 or 2 min. Then, turning the handle of the Velvet-Spra gun to the driving spray, he starts work on fenders, wheels and springs.

The feature of this washing apparatus is the exceptional fineness of the spray. It causes the water to penetrate caked dirt and grease-soaked dirt so the latter falls off in chunks and in a demonstration to a representative of Motor Age a car was washed in less than 20 min.

In the Speed-Spra, cold water is drawn from a supply barrel into the pump, placed under pressure and forced through a length of hose into the Velvet-Spra gun. There are no compressed air or mixing tanks, nor valves to operate. The pump itself is automatic, regulating its own pressure, and keeping the pressure constant, whether one or two leads are in operation.

With a quarter turn of the handle of the gun, the stream can be changed from a driving, cleansing spray, to a broad, soft, soaking flushing spray, or shut off altogether.

One of the outstanding advantages of the Speed-Spra is the automatic by-pass

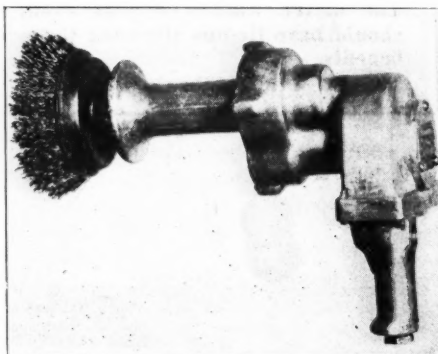
or governor, which maintains even pressure, and returns any surplus water or solution to the supply. When the gun is turned off, the water flows back into the supply barrel, and the motor or engine idles, consuming not more than 5 per cent of the current required when the gun is operating.

Another feature is that it is not dependent on city water pressure. A supply barrel, provided with an automatic float, furnishes the water. When the water level drops, the water flows in from the tap. When it is full, it shuts off automatically.

The apparatus requires floor space only 2 ft. by 5 ft., exclusive of the barrel. It can be placed anywhere, and can be installed by simply connecting the barrel with a water tap, and the motor to the electric circuit.

Uses Cold Water

An extra barrel may be utilized to contain soap or washing solution. It is operated by a three h. p. electric motor. An automatic control cuts down the motor to idling speed when the gun is not in operation. If preferred a three h. p. gasoline or kerosene engine can be used instead of an electric motor.



Standard Turbine Air Motor for use with wire brushes, grinders, etc.

The prices of the Speed-Spra vary from \$300 without the electric motor or gasoline engine to \$515 for the No. 5 machine which is fitted with a direct current, 115 to 230 voltage electric motor. Two 25 ft. lengths of high pressure lead hose are furnished with the outfit.

The Air Motor

The Standard Turbine Corp., Scio, New York has brought out a device known as the Air Motor to be used in connection with a wire brush for scaling paint from motor vehicles, in connection with grinding wheels and other similar operations in the automotive shop.

The Air Motor is said to be ideal for the above purposes, principally on account of its light weight and consequent ease of handling. The turbine consists of a wheel operating at a speed of 12,000 r. p. m. mounted on ball bearings and geared to the low speed shaft operating the wire brush.

The low speed shaft is laid in a long sleeve bearing and arranged also with a ball thrust bearing to take up any thrust imposed in applying the brush. The air is admitted to the turbine wheel by means of a valve operated by a trigger. The turbine wheel itself consists of a small steel forging tested to a maximum speed of 100,000 r. p. m. The bearings are grease lubricated, the grease connections being arranged for the Alemite system. The exhaust is through the center of the low speed shaft, assisting in keeping the brush clean.

The standing torque of the motor is greater for equivalent air consumption than any reciprocating motor it is said. The no-load speed of the motor is always such as to be less than one-third of the tested safe speed of the wheel. The motor has an all-aluminum casing and its total weight is 9½ lbs. without the brush, about 11 lbs. with the brush. The motor is free from vibration.

EDITORIAL

Why Radio Appeals

MERCHANTS who sell radio equipment do so with the natural expectation of making a profit. Many automotive merchants have taken up this line of business and some have made a profit and some have not. Those who have not made a profit usually attribute their failure to the price cutting carnival that we have observed in so many places where radio is sold. The fact that the radio business was so new and so much progress in design being made from day to day was largely responsible for the lack of stability in prices.

Still we find more and more automotive merchants putting in stocks of radio merchandise. Thus far radio is largely a fall and winter business. The automobile business in most sections of the country still falls off to some extent in these very same months, despite the many commendable efforts that have been made to keep the level up. It is the desire to supplement their automotive business with a line that will keep up the sales volume and profit production through the winter months that has led many dealers to engage in selling radio.

The average automotive dealer who takes on radio does not permit this supplementary line to interfere with his automotive business. He organizes his establishment so that he can give the right kind of attention to radio without in the least neglecting his automotive business. Many of his radio customers come from the ranks of the car owners that he already has contact with, and in many cases radio sales are made while the car is in the shop.

If the automobile dealer has his business so organized that he can sell radio without interfering with his automotive sales, and if he finds that his radio business returns him a profit that helps him to maintain a better establishment the year round, then he is justified in going into it. It is for him to determine. Certainly it would not appeal to him if there were no opportunity for profit in it.

Be Optimistic

AS September approaches the great industrial and financial leaders of the nation are predicting a period of unusual business development and progress. All summer the automobile business has been good and it has continued at a brisk rate later in the season than usual. There has been and there continues to be a quantity demand for automotive transportation. If general business continues to improve as the captains of industry predict, it should result in a tendency for the automotive business to remain at a higher level than is usual for the fall and winter months.

There is a lesson in this for the dealer. Be optimistic. Be conservative on the side of good business. Don't become hysterical and start trading wild for any kind of old used cars simply for the sake of making immediate sales. Let good judgment prevail. It looks now as if there

will be plenty of profitable business for the automotive industry. Why run your head off looking for unprofitable business?

Let the Public Know

IF the millions of motor vehicles in operation had the little attentions and adjustments they are in need of today to make them perform infinitely better, a vast amount of profitable business would immediately accrue to the automotive sales and service places.

Millions of hours of profitable labor would be sold and cash registers would swell with hundreds of thousands of dollars received from comparatively small merchandise sales.

One reason that this business does not come into the service stations and sales rooms today is that no effort is made to bring it in. The public doesn't know that a small replacement or adjustment that might cost only 50 cents or a dollar would make so great an improvement in the performance of an automobile. Or if the car owner does know what his vehicle needs he may put off having it done because he does not know how cheaply it can be done. No one has ever told him.

A case in point is a man who for a year had been planning to replace his spark plug leads and terminals. He was confident this replacement would give him more dependable and reliable service from his car. He had no idea what such a service should cost, but from past experiences with other repairs he had visions of a bill that might total many dollars. So he thought he would do the job himself when he got time. So he went along a year or more in the constant dread that some day his ignition circuit would fail him and he would be stalled on the road.

Finally he got to the point of stopping at a service station for the express purpose of purchasing the necessary insulated wire and the new terminals. He casually told the proprietor what he wanted to do and asked him how long it would take the service station to do the job. He was surprised when the answer was about a half hour. Immediately he gave instructions for the shop to go ahead with the job and in a half hour he had his car back with the job done skillfully by an expert at a cost very little more than the materials alone would have amounted to. And the car owner was saved a dirty and trying job that probably would have been none too well done when he got through with it.

There are literally millions of little jobs like this, or of a similar nature, that should be done on the automobiles running the highways every day. But the service stations are making no effort to get this business. They are not telling the public how cheaply these jobs can be done and what satisfaction comes from them. It is a vast field and one that will yield dollar profit to the service station and tremendous satisfaction to the car owners.

Automotive Production Remains High

Trend of Output Pointing Down in Factory Centers

Builders Working Now Largely to Care for Unfilled Orders—Prog- ress in This Direction Good

DETROIT, Aug. 22.—While production in several of the different automobile factories in the Greater Detroit area is still at nearly full capacity, yet the trend of the manufacturing output is pointing down.

Perhaps the best indication of this is the fact that orders for the various makes of passenger cars are not as easy to obtain now as they have been in the past. This is true, not only of those which have enjoyed normal outputs, but also of those makes which have done record businesses.

The output now is being used to catch up with the orders that have been on the books for some time. Some companies are making remarkable progress in this direction and have made great inroads into their unfilled orders. Those companies that have been doing a normal business are letting their orders control their production.

When the time arrives when the unfilled orders are no longer on the books, it is almost a foregone conclusion that the output will take a big drop and will continue on its way down until the annual rush starts again in the spring, because it is regarded as certain that the different manufacturers will control their output by the demands placed on them by their dealers and branches.

While it is only a matter of speculation, yet the coming months may see production drop to an unusually low figure for reasons mentioned above. And then again it may not, for the manufacturers wishing to maintain sales lines devoid of radical ups and downs may govern their production accordingly. As yet it is too early to predict just what course will be followed, except that production will drop.

RUBBER SURVEY STARTED

WASHINGTON, Aug. 22.—A survey of the consumption of crude rubber in the United States during the first seven months of the present year is underway by officials of the rubber division of the Department of Commerce, it was announced here this week. Questionnaires sent out by the division requesting statistics are just beginning to trickle into headquarters here and it is not expected that complete figures will be ready for several weeks. Officials admit that those already in hand indicate there has been no decrease in consumption of rubber and none is to be expected despite the high prevailing price of rubber.

CLOSED CAR SHOW PLANNED

LOS ANGELES, Aug. 22.—The Los Angeles Motor Car Dealers' Association has definitely decided to hold a Closed Car Salon this fall, either in the last week of October or the first week in November, according to an announcement by Secretary Burt Roberts. The exhibition will be staged in the Biltmore Hotel. Each distributor will be permitted to exhibit only one closed job of each make of car he handles. It is necessary to make this limitation owing to the amount of display space available at the hotel. There will be no admission charge, the show being financed by a flat assessment against the exhibitors, which is expected to amount of approximately \$175 each. The show this year will run five days as against three days last year.

CONTEST OFFICE MOVES

WASHINGTON, Aug. 24.—The office of the Contest Board of the American Automobile Association has been moved from Franklin, Pa., to the general headquarters of the A. A. A. in Washington. The Contest Board has charge of sanctioning and supervising all races and contests held under the auspices of the A. A. A.

PIONEER DEALER DIES

ATLANTA, Ga., Aug. 22.—Ben W. Holt, who, with Fred Rawlings, was formerly Georgia state distributor of the Cadillac, and who was one of the pioneers in the automobile business in the Southwest, died at his home in Saundersville, Ga., a few days ago.

CHEVROLET CUP AWARDED

BALTIMORE, Aug. 22.—A gold cup awarded monthly by the Baltimore Chevrolet Dealers' Association to the ranking salesman, was awarded last week to R. W. Wilson, of the Stallings-Ripple Chevrolet Sales Company, for his work performed during July. It was the second month the award was made, the first recipient being L. C. Weller, of the M-M-T Motor Company, for being the ranking salesman in June.

Willys Sees Production of 25,000 Cars in September

TOLEDO, Aug. 22.—Increase in business for September is predicted by John N. Willys, president of the Willys-Overland Co., upon his return from abroad and after a survey of conditions as he found them here.

He estimates production in September for his company will be 25,000 cars which is considerably more than is being made this month.

Last week production schedules were narrowed down by the factory and some men laid off. It is believed that this is only temporary and due largely to the immediate effect of the price changes.

Firestone Nears Completion Of Plan to Grow Rubber

Lease of 1,000,000 Acres in Liberia Is Virtually Ratified by Gov- ernment Official

AKRON, O., Aug. 22.—Harvey S. Firestone, president of the Firestone Tire and Rubber Co., has virtually completed negotiations with the Liberian Government for the leasing of 1,000,000 acres of rubber plantation land in the African republic.

Edwin Barclay, Secretary of State of Liberia, was in Akron to work out final details of the transactions. He arranged for a long time lease on the property. This is expected to be approved as soon as he returns to that country.

After receiving assurance from Secretary Barclay that officials of Liberia were ready to approve his proposition, Mr. Firestone announced that he will place under cultivation the entire million acre tract. He is planning to send a large force of men there to prepare the land for growing rubber trees. This marks the first effort of an American manufacturer to grow rubber on such a large scale, although the question has been agitated for years.

Mr. Firestone has long been interested in projects for American rubber factories growing their own rubber, and has waged a strenuous fight against the British monopoly of the rubber producing industry.

Three-quarters of the acreage of all the rubber plantations in the world are now controlled directly or indirectly by Great Britain. Most of the remaining supply of rubber is produced by the Dutch. America, the largest consumer of rubber in the world, has controlled until now only a small percentage of the total acreage of rubber producing plantations.

It is learned on good authority here that a \$100,000,000 corporation will shortly be formed to operate the Liberian plantation on a gigantic scale, which will assure American manufacturers of an adequate future supply of rubber. Mr. Firestone predicts that Akron will not only be the center of the manufacturing world, but will become also the headquarters of the rubber growing industry of America. This would be brought about, he indicated, through the formation of a mammoth corporation, designed to grow rubber in foreign countries, financed by American capital.

"The National Automobile Chamber of Commerce estimates that 1,500,000 more planted acres of rubber trees are needed, if the supply is to meet the demand within the next few years," Mr. Firestone said.

Delayed Buying Seen as One Cause of Sudden Sales Rise

Many Believe Prospective Buyers Waited Until After New Models Appeared

DETROIT, Aug. 22.—The recent increase in the number of automobile sales made throughout the country is not entirely attributed to the bringing out of new models.

There are those who believe that the price reductions and the new models are responsible for the phenomenal increase reported by dealers and distributors within the past ten days. But opposed to them in this particular belief are those who contend that the recent buying is nothing more than delayed buying, buying which should have been done two months ago.

Those who hold to this opinion express themselves this way: The motorizing public, especially those who were most likely to buy passenger cars knew two months ago that new models would be on the market before long. They preferred to wait until the time when the new models put in their appearance. When they did they bought. This buying could have taken place two months previously. Now it is easy enough for salesmen to say that the price reductions and the bringing out of the new models has caused the increase but then the drop in the sales, although the industry as a whole showed increases, previous to their coming out was nothing more than a reservoir out of which the present sales record was to come.

In answering these arguments, it is pointed out that the sales for May and June were above those of past years and that the recent increases are simply an answer of the public as regards the bargains the various manufacturers offered. As for the people not buying until the new models came out, that was true only to a small percentage, as they claim this tendency was not as noticeable this year as in the past.

NEW CHRYSLER DEALERS

CHARLOTTE, N. C., Aug. 22.—Signing of a number of contracts with automobile concerns in this territory, which will act as Chrysler dealers, was announced by W. T. Hoppe, president of Hoppe Motors, Inc., recently organized and designated distributor for the Chrysler line. The newly-signed Chrysler dealers included Franklin Sales Company, Aberdeen, N. C.; Frazer Motor Company, Chester, S. C.; Lutterloh-Shuler Motor Co., Fayetteville, N. C.; Thomas L. Craig, Gastonia, N. C.; Williamson Motor Co., Lumberton, N. C.; Craig Motor Co., Lancaster, S. C.; L. T. Lineberger, Lincoln, N. C.; Jarrett & Hamilton, Spencer, N. C.; B. B. Higgins Motor Co., Shelby, N. C.; Nance Motor Co., Troy, N. C.; J. Ray Barkalow, well-known in automotive trade circles in this territory, is in charge of wholesale sales for this company.

Hitching Posts Gone in Pilgrim City

PLYMOUTH, Mass., Aug. 22.—In this historic little town where stands the famous Plymouth Rock, at the spot the Pilgrims landed, the last relic of the horse age has passed. Workmen have started throughout the town and begun removing the last of the old hitching posts where residents and visitors tied old Dobbin while on business, sightseeing or at worship. The selectmen decided that the posts, particularly those in Town Square, interfered with the parking of motor cars and the spaces were ordered levelled off. And Capt. Myles Standish, from his high perch on the monument a little to the North near the coast seemed to be smiling as the work went on.

Hudson-Essex Prices Are Cut from \$55 to \$100

DETROIT, Aug. 22.—New price reductions on Essex and Hudson models have been announced here. The amounts range from \$55 to \$100. New prices, showing amount of reduction in each case, are:

| | Essex | | |
|-------------------|-----------|-----------|-----------|
| | New Price | Old Price | Reduction |
| Coach | \$795 | \$850 | \$55 |
| | Hudson | | |
| Coach | \$1195 | \$1250 | \$55 |
| Brougham | 1495 | 1595 | 100 |
| 7-Passenger Sedan | 1695 | 1795 | 100 |

O. J. GUDE DIES

NEW YORK, Aug. 22.—O. J. Gude, advertising man, died at Bad Nauheim, Germany, recently, and his body is being brought here for burial. He was co-defendant with the Ford Motor Co., John Wanamaker, Panhard & Lavassor and others in the Selden patent suits filed in 1903.

WILL STUDY U. S. ROADS

NEW YORK, Aug. 22.—Sir Henry W. Maybury, British minister of transport, is due here tomorrow. He will study American road systems, with particular reference to methods of construction. A delegation of automobile men will meet him at the pier and a lunch or dinner is to be given in his honor in a week or two, by the National Automobile Chamber of Commerce.

KERBY JOINS DURANT, LTD.

TORONTO, Aug. 22.—Roy D. Kerby has severed his connection with General Motors to go to Durant Motors of Canada, Ltd., as sales manager, filling the position made vacant by the death of R. D. McKellar. Mr. Kerby in linking up with the Durant organization has renewed a previous association with R. H. Mulch, general manager of Durant, as both held executive positions with General Motors of Canada.

Good Management Will Be Theme of M.A.M.A. Meeting

Toronto Convention in October Will Hear Speakers From All Divisions of Industry

NEW YORK, Aug. 22.—Information for executives is the foundation on which the Motor and Accessory Manufacturers' Association is building the program for the annual fall convention, to be held in Montreal in October. The general theme will be "Good Management," and the addresses and discussions of a four-day session will be devoted to fundamentals and experiences in management in all divisions of the automotive equipment manufacturing industry.

There will be subjects of particular interest to general merchandising and credit executives, but the entire program is being worked out in such a way that all sessions will have features of value for men in all divisions of manufacturing management, the association announces.

The convention speakers will include a number of nationally known business authorities and several others with wide reputations, particularly in the automotive field. Merle Thorpe, editor of *Nation's Business*, published by the Chamber of Commerce of the United States, is among the speakers from whom acceptances have been received. Others will be E. P. Chalfont of the Gill Manufacturing Co., president of the M. & A. M. A.; W. T. Morris of the American Chain Co., president of Automotive Equipment Association; T. M. Simpson, secretary of the Continental Motors Corp.; F. E. Titus, vice-president of the B. F. Goodrich Co., and W. E. Wissler of the Herring Motor Co., automotive equipment wholesaler in Des Moines, Iowa. Other speakers are under consideration by the program committee.

Separate sessions will be devoted to general management, merchandising management and credit management.

The program is being developed by a committee headed by B. M. Asch, president of Asch & Co., in co-operation with the association staff, headed by M. L. Heminway, general manager.

Production in July Marks New High Level for Period

WASHINGTON, Aug. 22.—July production of motor vehicles totaled 397,094, a new high record for the month. This compares with 402,848 in June, 1925, and 270,935 in July, 1924. The figures are for the United States and Canada, trucks included. July passenger car output was 357,883 and truck output 39,211, a gain over June for commercial vehicles, when the figure was 38,042.

The total production for the first seven months of the current year, it is shown by the Department of Commerce figures, was 2,570,610, against 2,325,496 for the corresponding period of 1924.

Midwestern Radio Dealers Meet With Gibson Company

Nebraska Buick Salesmen Also Hear
of Potential Profits in Ses-
sion at Lincoln

INDIANAPOLIS, Aug. 22.—The Gibson Company, automotive wholesalers, staged here one of the most effective and intensive meetings ever held in this city in its dealers' Radio Sales Educational meeting which in a few hours condensed a highly instructive and helpful sales course on radio to about 240 radio dealers and interested merchants of Indiana, Ohio and Illinois. The meeting was staged under the direction of J. M. Bloch, secretary of the Gibson Company and the active manager of the concern; E. M. Gass, manager of the Radio Department of the company; and A. H. Webber, merchandising manager of the company, who also acted as the meeting chairman.

The second floor of the big Gibson Building was transformed into a meeting room with a very complete display of radio sets and parts and batteries and power units. On the same floor where the dealers and interested merchants gathered informally in the morning was a large space set aside for the luncheon which the company served to all its guests.

Among the speakers were Frederick Bremier, assistant manager of the commercial research department of the Curtis Publishing Co., who epitomized the finding of the extensive radio merchandising research made by the Curtis company some time ago. He showed why merchants of Indiana, Ohio and Illinois can look for sales of from one to one and a half million sets in this territory and showed that there is the country a potential market for the sale of 15,000,000 sets.

R. M. Klein, general manager and Harry E. Sherwin, sales manager of the F. A. D. Andrea Company, makers of FADA, which the Gibson Company distributes in 70 Indiana, five Ohio and 13 Illinois counties gave complete descriptions of the qualities of this type and the merchandising and commercial policies of the concern which have been effective in the protection of the jobbers and dealers.

NEBRASKA BUICK DEALERS STUDY RADIO

LINCOLN, Neb., Aug. 24.—That the opportunities for substantial profit in the merchandising of radio products are becoming widely appreciated by automobile dealers, particularly throughout Nebraska and the west, was evidenced by the enthusiasm shown by the Nebraska Buick salesmen and dealers who attended the meeting of dealers held by the Nebraska-Buick Company in Lincoln, recently. At this meeting the newest models of the Music Master line were shown.

A similar meeting was held at Omaha, which was attended by a large number

Sunday Contract Not Binding

MILWAUKEE, Aug. 22.—A contract for the purchase of an automobile, made on Sunday, although otherwise dated, is not binding and cannot be enforced, Judge A. J. Braun told Louis Karlic in civil court in Milwaukee. Karlic was suing L. R. Shainck for \$100 for the balance due him on an automobile. Karlic had purchased a second hand car, valued at \$230, from Shainck and paid him \$150 down on it. The deal took place on a Sunday but the contract was dated Monday. Mrs. Karlic did not approve of the transaction and the car was returned. Shainck gave Karlic \$50 and told him he would pay the remainder when the car was sold. In the meantime the car was wrecked. The plaintiff's attorney brought out the fact that the original transaction took place on Sunday, whereupon the case was dismissed.

of present and prospective dealers in that territory. At this meeting it was brought out that more and more automobile dealers who handle the better class of cars are being granted the Music Master Franchise.

Present at these meetings were C. L. Carper, Vice President, Nebraska Buick Auto Company; Fred D. Williams, General Sales Manager, Music Master Corporation; L. A. Dunn and C. A. Brinston of the Zenith Radio Corporation; Robert W. Porter of the Thompson Radio Corporation; Allen Williams, northwest manager of Music Master Corporation, and H. N. McMenimen of the Music Master home office at Philadelphia.

July Hupp Sales Break All Previous Records for Period

DETROIT, Aug. 22.—July sales of automobiles by the Hupp Motor Car Company broke all previous records for the same period. According to O. C. Hutchinson, general sales manager, it was one of the three largest months in the history of the company. Compared to July 1924, the sales for last month were 59 per cent higher with the sales volume in dollars registering an even larger increase, due to the eight cylinder car.

The records for the June and July sales of this year, Mr. Hutchinson said, were 76 per cent better than those for the same months last year.

Factory shipments of Hupmobile eights to distributors reached the highest total they have yet attained, surpassing the June record by 400 cars and doubling that of May. Heavy production is being maintained this month in an effort to catch up with the sales stimulus brought about by reductions at the beginning of the season.

N.A.D.A. Finds Most Sales Of Today Are Replacements

Two, Three and Four Transactions
Generally Necessary Before Original Investment Is Obtained

ST. LOUIS, Aug. 22.—Two, three and four sales are generally necessary for an automobile dealer to finish a transaction begun with the sale of a new car, according to studies that have been made by the National Automobile Dealers' Association. One exceptional case showed 47 transactions before the dealer was able to clear himself of his entire original investment in an old car he had accepted as part payment in the delivery of a new car.

In studies which the N. A. D. A. has been carrying on for the last four years, it was brought to light that the number of new car sales influenced by the old car was steadily increasing until in 1924 it had reached more than 70 per cent for all lines of cars. Some low priced cars of large sales volume had a much lower ratio, in some states as low as 10 per cent of the new car sales were made on the basis of trading an old car. In the higher priced classes, hundreds of dealers were doing a 100 per cent trading business.

These factors reveal with considerable certainty that the new car sales field of today and future years is more and more restricted to a replacement business.

Willys-Overland Makes 1926 Distribution Plans

SAN FRANCISCO, Aug. 22.—General plans for the 1926 distribution and sales programs for the Overland and Willys-Knight organizations in central and northern California in particular and the entire Pacific coast in general, were laid at a meeting held in the Hotel Whitcomb here.

Among the scores of distributors of and dealers in these cars attending the two-day meeting were: Carroll J. Rogers, chief supervisor of Willys-Overland, Inc.; S. Robert Swiss of the United States Advertising Corporation, Toledo; L. E. Longfellow, manager of the car order department; H. C. Macaire, California supervisor of sales; J. W. Hawk, manager San Francisco branch, Willys-Overland Pacific Company; L. J. McCracken, manager Los Angeles branch; J. H. Alfred, Portland and Seattle, Pacific Northwest manager; Arch Browning, distributor, Salt Lake City; H. H. Hotchkiss, distributor, Phoenix, Ariz.; G. H. Bryant, special Pacific coast representative of the United States Advertising Corporation, and every distributor of the Overland and Willys-Knight for all of California.

The meeting was the eighth of a series of nine zone meetings planned to cover all of the United States, the last one being in Seattle. Analysis of the past six months' sales showed material gain over 1924.

Yellow Cab-General Motors Merger Effective Sept. 1

Majority of Stockholders Vote for Consolidation Plan in Meeting at Portland, Me.

CHICAGO, August 22.—Announcement has been made by John Hertz that operation of the Yellow Cab Manufacturing Co. and the truck division of General Motors Corp. under the name of the Yellow Truck & Coach Manufacturing Co., will be effective September 1. Mr. Hertz will be chairman of the board of directors of the new company.

Stockholders representing 490,000 shares of the 600,000 shares of the Yellow Cab Manufacturing Co. stock outstanding, voted for the merger which was negotiated by Hertz.

The truck division of General Motors will be acquired by Yellow Cab Manufacturing Co. through stock ownership of 500,000 shares of the Yellow Cab stock, par value at \$10 a share. The truck business which is being taken over, was valued at \$16,000,000 on April 30, 1925.

Meeting in Portland, Me., stockholders also have authorized the board to issue and distribute 150,000 shares of preferred stock, par value at \$15,000,000, to be paid as a stock dividend pro-rata to holders of the 600,000 shares of Class B stock of the Yellow Cab Manufacturing Co.

The board of directors will be increased from thirteen to twenty-one. A change was authorized in the capital stock by retiring \$575,000 class A stock and by adding 200,000 of preferred stock of the par value of \$100 a share and 1,000,000 shares of common stock of the par value of \$10 a share.

Hupp Produces 10,000 Eights in Seven Months

DETROIT, Aug. 22.—Hupmobile has produced its ten-thousandth eight, a five passenger sedan which was completed at the factory here last week. Its production is said to be a record in that the 10,000 cars were produced within seven months of its first announcement.

Production for the present month has been set at 2,000 eights, which if reached will surpass that of the largest previous months in the eight cylinder division.

According to O. C. Hutchinson, general sales manager, "the record achieved by the Hupp organization in producing 10,000 eights in a little over seven months following its first announcement has never been approached by a builder of fine motor cars. It represents a public demand for more than \$20,000,000 worth of Hupmobile eights."

Velie July Business Shows Large Increase Over 1924

MOLINE, Aug. 22.—Velie Motors Corporation reports a 69 per cent increase in July shipments over July of last year.

Venice Forced to Build Roads

VENICE, Aug. 12.—(By Mail).—Centuries of romantic isolation enjoyed by the city of Venice as an island, will be only memories because the automobile has forced authorities to consider plans for a highway between Venice and Padua.

The gondolas have been the single means of travel between Venice and the rest of Italy, except the railroad which crosses the lagoon on a pontoon bridge.

Definite plans for the highway have been completed and are in the hands of government authorities who are responsible for a decision. Indications are that the road will be authorized.

Company officials say that Velie business for the last ten months has shown a sizable increase over corresponding months of a year ago and predict that August shipments will exceed those of August 1924 by approximately 100 per cent. They report that on August 10 unfilled shipping orders on hand for August exceeded shipments for the entire month of August, 1924, by 45 per cent.

Business for the 12 months ending August 31 will, it is said, show an increase of nearly 40 per cent over the like preceding period and will represent the largest similar period for Velie since the war boom.

Velie has discontinued manufacture of the Phaeton but will continue to build the Club Phaeton.

C. W. Hadden, General Sales Manager for Velie, is visiting Velie distributors at Mountain states and Pacific Coast points during August.

KEENE GOES TO COAST

CLEVELAND, Aug. 22.—The Swan Carburetor Company announces the transfer of C. F. Keene from the Kansas City territory to the Pacific Coast territory, where he will act as district manager for the Perfection Heater & Mfg. Co. and its subsidiary, the Swan Carburetor Company. Mr. Keene, during his automobile racing days, spent many years on the Pacific Coast and built and raced various cars.

NASH SETS RECORD

MILWAUKEE, Aug. 22.—Fifty-one Nash cars were delivered at retail in Milwaukee during the week of August 2, setting a new record for the Nash sales company, and besting by 50 per cent the highest number of Nash cars ever delivered in any one week previously. A most wonderful reception has been accorded the new special six and advanced six since their introduction late in July, according to officials of the Nash Sales Co. One of the big Nash selling points in Milwaukee is the saving of from \$30 to \$60 on freight effected because of the location of the plant in Milwaukee.

California Dealers Charge Jobbers With Lax Methods

Tradesmen Declare Manufacturers Also Responsible in Increase of "Fly-by-Nights"

LOS ANGELES, August 22.—An indictment of what is described as "reckless credit extension" by many manufacturers and distribution of automotive equipment, accessories and replacement parts, is presented in a bulletin recently issued by the Southern California Automotive Dealers' Association and the Los Angeles Automobile Trade Association. It is held by the executive officers of these bodies that established automotive businesses are being disrupted by the ease with which irresponsible individuals can obtain equipment and merchandise, and continue in business, without possessing the requisite capital to justify the credit allowed them.

The associations charge that there is a veritable army of fly-by-night operators of automotive establishments of various kinds who get started in the automotive business, and stay in it for periods of varying duration by "the extension of credit entirely unwarranted, and by the apparent willingness of competitors of the distributor or manufacturer who opened the account to continue holding the sack just as soon as the account proves itself worthless to the party originally financing it."

"In summing up the situation," says the bulletin, "we are brought face to face with the realization that somebody does pay these bills, and then to the painful realization that the manufacturer, distributor or jobber who fosters and assists these accounts is actually in competition with his customer who discounts regularly. This matter cannot be looked at in any other way."

"A manufacturer, distributor or jobber opening an account which is not in a position to finance itself for at least 90 days, and who extends credit to a concern which has proved by its past record that it is not able to discount its bills, is actually in competition with his choicest customer, the man who does discount promptly. And the time is coming when the automotive merchant who is seriously engaged in erecting a business in the automotive industry will be compelled to ask the manufacturers, distributors and jobbers of the commodities which he handles just who they want to do business with—the fly-by-nighter, the cut-throat artist, the discount salesman, the here-today-gone-tomorrow dealer, or the responsible merchant with an established reputation. Nobody can compel the manufacturers, distributors and jobbers to adopt sane business methods in respect to credit extension, but the responsible automotive merchant can most assuredly convince them that they must make their choice as to which class of trade they want to do business with."

Rental Agents Meet to Map Out Plan to Protect Public

All Who Hire and Misuse Cars in Any Way Will Be Placed on Operators' Black List

SPRINGFIELD, Ill., Aug. 22.—That by renting motor cars to irresponsible persons, Illinois hire-a-car dealers are arming such individuals with potential death dealing weapons, is the contention of States Attorney J. A. Fullenwider of Sangamon county. He called a meeting here of the central Illinois rental agency proprietors in order to map out a plan for the protection of themselves and the public.

Upon the suggestion of the public prosecutor, a complete rogues gallery will be opened which will blacklist all persons who have mishandled a rented car. Through it, a person who has driven a hired car to the risk of the owner of the machine, as well as endangering other drivers, cars and pedestrians, will be unable to rent a machine from any agency in the state.

That the majority of cases of damage caused by rented automobiles is credited to minors, is regarded as an argument towards preventing the rental of public cars to any one under 21 years of age. Contracts entered into with minors are void, and an attempt will be made to prevent minors from executing such contracts with rental automobile dealers.

That the need of regulation in the hired car field is great, is the opinion of the state's attorney and police department here. Reports of accidents in which rented machines are involved, are increasing throughout Illinois and, in numerous instances, the drivers were not financially able to meet obligations resulting when the machine they were handling collided with that of another.

By the means of state and national rules and regulations, the public will be protected to a greater degree than has been the case in the past, as well as the proprietors of the establishments which supply "drive it yourself" cars, and which have become very numerous of late years.

FORD TO SCRAP SHIPS

DETROIT, Aug. 22.—Within a month the first of the 149 lake ships included in the fleet recently obtained by Henry Ford from the U. S. Shipping Board, will arrive in the River Rouge. A force of men will commence cutting the 1,500 tons of steel in each of the vessels. The "scrapping" process will require eighteen months, it is estimated.

WILLS SAINTE CLAIRE DEALERS

MARYSVILLE, Mich., Aug. 22.—Dealers who have recently taken on the Wills Sainte Claire line are: Marksman Auto Company, Fall River, Mass., Humphries Motor Company, Inc., Sharon Hill, Pa., Blasky & Pruitt, West Palm Beach, Fla.

SPOKANE SEES AJAX

SPOKANE, Aug. 22.—More than 4,000 persons inspected the Ajax car in Spokane during the premier showing early in August, in the display rooms of the Spokane Nash Motor Company, Spokane's distributors, according to Joseph Bain, sales manager of the company. "We are greatly pleased with the way the newest addition to motordom has been accepted in Spokane," said Mr. Bain. "We sold 14 cars in less than a week. All but one were sedans."

TO PRODUCE HOLYOKE TIRE

HOLYOKE, Mass., Aug. 22.—The New England Tire & Rubber Company is working out plans for reorganization to again produce the Holyoke tire. L. A. Laporte, who became president just before the company went into receivership last spring, is working hard to put it upon an operating basis again. He stated that the company hopes to resume production again by September 15 or October 1. Plans for a reorganization contemplate a new company incorporated under Massachusetts laws with a capitalization of \$825,000. This company will take over the liabilities of the old company. A line of balloon tires will be produced as well as the Holyoke Chainess Tread.

OHIO REGISTRATIONS UP

COLUMBUS, O., Aug. 22.—Ohio motorists, in addition to paying more than \$2,000,000 in gasoline taxes since March, have also paid almost \$1,000,000 more for auto tags so far this year than they paid during the entire year of 1924, according to Thad H. Brown, secretary of state. Secretary Brown's report shows \$12,636,702 paid for tags up to July 31. This is \$2,146,793 more than they paid during the same period last year. It is also \$939,474 more than the entire sum of last year. Receipts for the last five years have shown a steady increase from \$4,682,064 for the first seven months of 1920.

SEEKS STUTZ STOCK

NEW YORK, Aug. 22.—Stockholders of Stutz Motor Car Co. have been asked to release 10 per cent of their holdings within ten days after February 15, 1927, in order to provide an option of one tenth of the capital stock to be sold to F. E. Moskovics, president. Directors agreed to this rather than increase the capital when Mr. Moskovics stipulated that he be permitted to buy 10 per cent of the stock. Stockholders will receive \$10 a share.

N. A. D. A. MEET IN MOBILE

MOBILE, Ala., Aug. 22.—The Mobile Chamber of Commerce has announced that the city of Mobile has been selected for the holding of an automobile trade congress by the National Automobile Dealers' Association, the date for the congress being Thursday, Nov. 5, 1925. This meeting, which is one of several the N. A. D. A. is holding throughout the country, will bring together about 100 representative dealers in the Alabama, Mississippi and Florida territory.

U. S. Bureau Denies Alcohol Must Have High Compression

Fuel Allows But Does Not Require Higher Ratio—Needle Valve Opening Must Be Larger

WASHINGTON, Aug. 22.—The Bureau of Standards, in a statement just issued here, corrects the erroneous statements made recently that a high compression ratio is necessary in alcohol as a fuel for internal-combustion engines.

"That this is not true," says the statement, "is fortunate, as manufacturers would be very loath to alter their engines in such fashion as to render them unsuitable for operation with gasoline."

"The fact is that alcohol permits, but does not require, the employment of a much higher compression ratio than gasoline. Should alcohol or other fuels of equal antiknock value become generally available compression ratios could be increased, and as a consequence higher efficiencies could be attained. In the meantime the chief advantage to be derived from the use of an antiknock fuel is that it permits satisfactory operation with an engine too badly carbonized for satisfactory operation with gasoline."

"The use of alcohol does require larger metering jets or a larger needle valve opening in the carburetor. This is necessary both for the reason that alcohol is more viscous than gasoline and because a much richer mixture of alcohol and air is required for complete combustion than of gasoline and air. Fortunately this change can be made ordinarily with little difficulty."

UNIFORM GASOLINE SIGNS

MILWAUKEE, Aug. 22.—Gasoline filling stations in Wisconsin are to be provided with uniform signs for the display of their gasoline prices, the department of markets of the state has announced. The department amended its order requiring gasoline price publicity when oil jobbers at a joint hearing approved of the uniform sign system. All filling stations will be provided with a standard type of frame for their price signs which are required under the publicity order to prevent unfair competition by secret discounts or rebates. The uniformity of posting is intended to make easier the projected rigid state supervision.

EDMUND & JONES EARNINGS

DETROIT, Aug. 22.—For the first half year Edmund & Jones Corp. reports \$2,573,729 sales with \$191,046 net earnings equivalent to \$4.26 per share on common before preferred sinking fund. Common dividend was increased from \$2 to \$3 per share, payable quarterly. The directors authorized sale of 10,000 shares unissued common giving rights to common stockholders of record Aug. 14 to subscribe for one share of new for each four of old common owned at \$26 per share, rights expiring Aug. 31.

N. A. D. A. Will Start Series of Sales Congresses in September

Used Car Plans and Dealer Profits Will Be Subjects Before Dealers in 21 Cities

ST. LOUIS, Aug. 22.—A series of sales congresses is to be conducted by the National Automobile Dealers' Association during September. The dates given out for the various cities in the first announcement are:

Des Moines, Iowa, Sept. 9.
Peoria, Ill., Sept. 10.
Ft. Wayne, Ind., Sept. 11.
Buffalo, N. Y., Sept. 14.
Lockport, Sept. 15.
Niagara Falls, Sept. 15.
Batavia, Sept. 16.
Canandaigua, Sept. 16.
Rochester, Sept. 17.
Syracuse, Sept. 18.
Utica, Sept. 21.
Schenectady, Sept. 21.
Albany, Sept. 22.
Poughkeepsie, Sept. 23.
Kingston, Sept. 23.
New York, Sept. 24.
Brooklyn, Sept. 25.
New Haven, Sept. 28.
Bridgeport, Sept. 28.
Hartford, Sept. 29.
Boston, Sept. 30.

Sales plans, used car plans and dealer profits will be discussed in all the programs, all of which will be identical as far as topics to be discussed are concerned.

Under the head of sales plans national authorities will discuss the best methods for training salesmen to follow definite sales plans and how successful sales plans are built and developed. Market analyses from the standpoint of successful methods used by prosperous dealers and distributors also will be discussed.

Automobile dealers throughout the country lost 8.2 cents for every dollar of car sales on used cars during 1924. This was about one cent less than the losses in 1923. The N. A. D. A. has conducted a campaign of education on the used car situation for four years which has been largely responsible for the reduction in used car losses. In 1922 dealers throughout the country lost \$126,000,000 on used cars and in 1924 they lost \$40,000,000. How this great reduction in used car losses was brought about and what plans are afoot to still further reduce losses will be discussed at the forthcoming sales congresses.

How successful dealers are able to make 5 per cent net profit will be another interesting item on the programs.

Speakers and details of the various programs have not as yet been announced but the N. A. D. A. announcement of the campaign says that while all the meetings will have the same subjects, not all the speakers will appear at all of the cities.

All the congresses are being arranged in co-operation with local associations and dealer committees. Dealers who wish to attend are urged to see the president or secretary of their local association for information concerning the time and place of the meeting in their vicinity.

Police Learn to Repair Fords

NEW YORK, Aug. 22.—To give the motorized police of New York City an intimate knowledge of the construction and operation of the 722 Ford cars recently purchased by the city, a special Ford school has been established by the New York Police Academy at Thirty-fourth street and Lexington avenue. More than 2,800 police sergeants and patrolmen detailed to the motor division of the police force are enrolled in the Ford school in a course which completely covers every phase of the Ford engine, electrical, clutch and drive system.

"Fords are rapidly taking over the important features of the police department's patrol work," Police Inspector John J. Noonan explains, "and it is our intention to make every officer as familiar with his Ford as he is with his revolver."

Sixty especially selected men of the division, in addition to their week's instruction in the Ford school of the Police Academy, spent a week in the Ford Motor Company plant at Kearny, N. J., to learn Ford methods in shop work and construction. They will have charge of the precinct police garages.

DEALERS CLOSE SUNDAYS

SPOKANE, Wash., Aug. 22.—Automobile dealers of Spokane, through the Spokane Automobile Chamber of Commerce, have ruled against Sunday opening, and as a result all showrooms will be closed here in the future. Lack of business resulting from Sunday opening and sentiment against a seven-day week for employees led to the move.

HOOD HOLDS CONVENTION

BOSTON, Aug. 22.—The Hood Rubber Company held the biggest convention in its career here the past week when men from all over the country were present with the factory executives and workers going into all details of the rubber business. There were more than 200 branch managers alone in attendance. The convention was under the direction of T. R. Stearns. L. Lawrence Muench was in charge of the sessions on production; W. W. Duncan, general sales manager, had charge of the sales promotion meetings; A. R. Howell directed the discussions on advertising policies. The delegates were housed at Nantasket Beach instead of in Boston, and there were dinner parties and entertainments each evening, ending with a banquet at Pemberton Inn, where the principal address was delivered by President F. C. Hood. He gave facts and figures to substantiate his statement that the Hood Rubber Company was enjoying the most prosperous year in all its history.

A. A. A. Pushes Campaign to Remove War Excise Taxes

President Henry Shows There Are Four Times as Many Paying Car Levies as Income Tithes

WASHINGTON, Aug. 22.—Calling attention to the fact that there are four times as many people paying excise taxes on automobiles and parts as there are people paying income taxes, a statement broadcast from the national headquarters of the American Automobile Association this week emphasizes that any program for the reduction of national taxation in the forthcoming session of Congress must take cognizance first and foremost of the burden that the continued excise tax places on the motorists of the country.

"With a surplus of \$350,000,000 in sight for the fiscal year 1926," President Thomas P. Henry of the A. A. A. declares, "it stands to reason that the special tax imposed on motorists as a class by the government can be removed without risking a deficit in federal finances."

The A. A. A. statements called on all motorists to urge their representatives in Congress to support the repeal of the excise tax. It pointed out that the total excise tax paid by motorists on automobiles and parts for the fiscal year ending June 30, 1925, was \$122,742,440.29. This total is based on the figures of the Internal Revenue Bureau and is equivalent to \$29.00 per motor vehicle. The total tax paid by motorists in 1924 including federal, state and municipal taxes amounted to \$555,028,548.00.

"The motor vehicle excise tax," President Henry continues in the statement, "is essentially unsound. Even as a war measure it was unsound to base the tax on the assumption that the automobile is a luxury. Ninety per cent of all cars are used more or less for business purposes, while more than 60 per cent of the total passenger car mileage is strictly for business use."

"The tax is discriminatory in its effect on both an instrument of commerce and a commodity."

FINNISH DEALER VISITS MOON

ST. LOUIS, Aug. 22.—Frejvid Borg, managing director in the Motor Kompaniet at Helsingfors, Moon distributors for Finland, has just arrived in St. Louis for a several week's conference at the factory. Borg, a progressive type of the younger business man of Finland, was shown about the city by Edmund H. Serano, director of exports for the Moon Motor Car Company and expressed his amazement at the size of the automobile industry here. Borg expressed keen interest in the various manufacturing operations through which the Moon car passes from the raw product to the finished job and was particularly impressed with the inspection to which every Moon part is subjected before being incorporated in the car itself.

European Bars Against U. S. Automobiles Being Lowered

N. A. C. C. Official Sees Great Improvement in Export Situation During Trip

NEW YORK, Aug. 22.—Legislative bars to American automobile sales in Europe are being lowered in several important instances, George F. Bauer, secretary of the foreign trade committee of the National Automobile Chamber of Commerce, said on his return from a three months trip to the continent.

Germany is preparing to replace the present license system, which has virtually excluded American cars, with a tariff arrangement under which sales in considerable volume may be expected, Mr. Bauer reported. Early action on this program is looked for.

Austria may follow the lead of Germany and there is even hope that France may decide to reduce the current tariff if reciprocal action is taken by the United States, Mr. Bauer said. He found that the lowering of the Finland tariff, which discriminated against American imports, has greatly stimulated sales there.

"Customs restrictions and lack of financing facilities are the principal restraining factors in the foreign field today," said Mr. Bauer. "The people for the most part want automobiles and will buy them if prices and terms are right. Progress is being made toward admitting American cars on a basis that permits fair competition, but a great deal still remains to be done along these lines, and in the way of extending credit facilities.

"In Germany for instance, interest rates are 10 to 12 per cent, and there is no credit available for financing dealers or retail sales. As soon as the European nations lay aside their petty jealousies and establish themselves on a basis that will inspire the confidence of investors, capital should be made available for automotive transactions.

"Only in Sweden and Denmark did there seem plenty of money for financing sales, and the terms, it must be said, were hardly sound. In many instances only 10 per cent cash was required and the balance spread over two or three years.

MARMON CHANGES OPEN CARS

INDIANAPOLIS, Aug. 22.—Nordyke & Marmon Company announces that it has added considerable equipment and refinement to its five passenger phaeton, and to its seven passenger touring car and raised the prices of each of these open vehicles to \$3,295, the same price as the vehicles in the standard closed car line. Among the equipment and accessories added to the phaeton and touring cars are fender mirrors, top boot, tonneau cover or boot, and nicked rear vision mirrors, with nicked windshield frame and other refinements of finish.

DEERE RAISES DIVIDEND

MOLINE, ILL., Aug. 22.—Deere & Co., which has maintained a preferred stock dividend without interruption since its incorporation in 1868 but was forced in 1921 to cut its rate to 3 per cent and has since gradually increased it, this week placed the stock on its customary 7 per cent basis, the directors at the same time authorizing the payment and retirement of the outstanding portion of the \$10,000,000 gold note issue of 1921. The notes are to be paid from receipts from inventory liquidation and not from any profit earned by the company. The action on \$14.25 accumulated back dividends of the preferred stock has not been determined but the directors say it will be paid "as rapidly as circumstances permit." The gold notes to the extent of \$2,500,000 have been previously retired, leaving \$7,500,000 to be called in at this time.

CAPITAL TO VIEW AJAX

WASHINGTON, Aug. 22.—The new Ajax will be formally introduced to the Washington public in the near future, it was announced here this week by E. M. Wallace of the Wallace Motor Co., Washington Ajax distributor, located at 1709 L street, northwest. "Opinion throughout the industry and among those who have opportunity to view the car," says Mr. Wallace, "unhesitatingly pronounce the new Ajax the crowning achievement of C. W. Nash."

NEW GARDNER DEALERS

ST. LOUIS, Aug. 22.—Dealers recently added to the organization of the Gardner Motor Co. follow:

Lukavsky Motor Co., Los Angeles; Lyndale Auto Service, Minneapolis; J. A. Davidson, Oxnard, Cal.; Ventura Motor Co., Ventura, Cal.; Frank E. Todd, Sheridan, Wyo.; Sible Motor Sales, Mount Vernon, Wash.; Kaufman Motor Sales, Chicago, Ill.; E. A. Moberly, Carlsbad, N. M.; Smith Automotive Co., Oregon, Wis.; Dunn & Gillis, Minneapolis; Hancock Square Garage, Quincy, Mass.

FREEMAN JOINS GARDNER

ST. LOUIS, Aug. 22.—C. L. Freeman, who has been identified with some of the most important automobile builders in America during the last 10 years, has joined the Gardner Motor Company, Inc., as assistant general manager. Mr. Freeman is a highly trained technical expert who has served many famous motor car builders in the capacity of consulting engineer. Just prior to joining Gardner, he designed and engineered one of the outstanding motor car successes of recent years.

OAKLAND BRANCH SOLD

DALLAS, Tex., Aug. 22.—The Oakland factory branch at Dallas has been sold to F. L. Toepperwin according to announcement of C. W. Matheson, vice-president of the Oakland Motor Company who was here this week. Paul A. Stevenson, formerly manager of the branch, is made district manager for all Texas except the Panhandle section,

Sales Executive Sees Big Change in Buying Habits

Pierce-Arrow Manager Believes Seasonal Business Curves Rapidly Being Levelled

BUFFALO, Aug. 22.—Back from a 9,000-mile trip through the United States to observe business conditions in the automobile industry, L. E. Corcoran, general sales manager of the Pierce-Arrow Motor Car Company, declared today that the motor car buying habits of the public have undergone a pronounced change.

"In contrast with former years, automobile sales this year have continued at high levels during the summer months," said Mr. Corcoran. "This is one of the several evidences that the unhealthy condition of peak buying activity in spring and fall, and sales stagnation in mid-winter and mid-summer, is rapidly being wiped out.

"Buyers in increasing numbers are coming to the conclusion that it is just as sensible to buy in one month as it is in another, regardless of the season. The habit of buying in the spring is a heritage from the old days when there were few closed cars and automobiles were suitable only for fair weather driving. The ability of manufacturers to produce all-season closed cars at prices close to those of open models has changed all this.

"The habit of buying in early fall was the result of the uneconomic practice of some makers of announcing radical changes and new models in mid-summer. The more stable manufacturers for several years have been pursuing the sound policy of continuously making gradual improvement and refinements without announcing yearly models. Buyers of cars built under such a policy know that they will not be subjected to artificial depreciation losses and therefore do not hesitate to buy in any month of the year."

WISCONSIN PLATES PLACED

MILWAUKEE, Aug. 22.—An order for 650,000 automobile license plates for the year 1926 has been placed with the Wisconsin state prison plant at Waupun, Wis., by Fred R. Zimmerman, secretary of state, whose department is in charge of auto registration. The color of the 1926 plate will be black numerals on a cream background. Normal demand for automobile plates is about 600,000. Mr. Zimmerman announces, but increased registration for 1926 is indicated in the present automobile sales situation, he believes. For the first half of the year 1925, during which most of the registration takes place, there were registered 541,927 automobiles, records in Zimmerman's office show. He estimates that the total number of 1925 registrations will reach 606,900, making this year a record year.

Auburn Declares 100 Pct. Stock Dividend on Common

**Capital Is Increased to \$1,500,000—
Unfilled Orders Said to Be
Heaviest in History**

AUBURN, Ind., Aug. 22.—At a special meeting of the stockholders of the Auburn Automobile Company a stock dividend was declared of 100 per cent on the common stock of \$25 par value, increasing the capital of Auburn from \$750,000 to \$1,500,000.

E. L. Cord, vice-president and general manager, who has just recently bought out the former control, in his report to stockholders advised that unfilled orders on the books of the Auburn Automobile Company were the greatest in the history of the company.

"Earnings for July approximated \$1.50 per share on the new capitalization of 60,000 shares after setting up a reserve for taxes and estimated earnings for the month of August will approximate \$2.25 per share", stated Mr. Cord.

"Within the last year the Auburn Automobile Company has retired \$500,000 in preferred stock and is in exceptionally nice position. In the past twelve months we have not used any credit whatsoever, having had sufficient working capital to operate our business.

"We anticipate that the complete year of 1925 will far exceed the best year that Auburn ever had in both numbers of cars and earnings."

Immediately following the stockholders' meeting the directors had a special meeting and voted the issue of the stock dividend and authorized the payment of a quarterly dividend of seventy-five cents per share payable October 1 to stock of record September 20.

The resignation of F. B. Hitchcock as a director was accepted and L. B. Manning was elected to complete that portion of his unexpired term.

PAGEOL EARNINGS HIGH

OAKLAND, Cal., Aug. 22.—Books of the Pageol Motor Company, of this city, opened to the public early in August, showed that the corporation during the first half of 1925 earned more than \$300,000 in net profits, or nearly six times the preferred dividend requirements for the entire year. The company earned approximately 36 per cent on its preferred stock, or at the rate of 72 per cent a year, while the earnings on its common stock were at the rate of 13½ per cent or 27 per cent a year. The company is paying no dividend on the common stock, but is building up a surplus to enable it to strengthen its position as a manufacturer. Inasmuch, however, as the preferred stock divided amounts to only \$57,000, while the company earned at the rate of \$2.70 on its common stock of \$10 par, it is apparent that a healthy dividend could be paid on the common. At the end of July, the Pageol factory here was working at capacity production on motor stages and trucks.

1909 Packard Is Still "Asset"

WASHINGTON, Aug. 22.—After 500,000 miles travel a 1909 Packard is listed among the assets of an automobile mechanic in bankruptcy court here. He admits that he has changed tires.

Automobile Club experts figure that the car has averaged 85 miles a day for sixteen years, or the equivalent of twenty trips around the equator. The old machine will be sold to satisfy creditors at an appraised value of \$25.

NEW MARMON DEALERS

INDIANAPOLIS Aug. 22.—Nurdyke & Marmon Company sales department announces that it has closed 12 new dealer arrangements in nine states in recent days thus keeping up the extension of dealer organization which has been going on rapidly for more than a year. The new Marmon dealers are:

Whieldon Motors Co., New Castle, Pa.; Hall Motors, Santa Anna, Cal.; Reo Motor Sales, Decatur, Ill.; Thompson Marmon Service Co., Chicago; Washington Auto Co., Yakima, Wash.; James P. Marchington, Newport, R. I.; Flint Marmon Sales, Pontiac, Mich.; Marmon South Side Sales & Service Co., Chicago; Coleman & Nelson, Williamsport, Pa.; Luckett & Major, Madison, Ind.; Stephens Bergen Motor Co., Inc., Hackensack, N. J.; Franklin Sales & Service Co., Wilmington, Del. Four new associate dealers have also been appointed; Schmidt & Blackford, Charleston, Ill.; James A. Smith, El Paso, Ill.; Lacon Auto Service, Lacon, Ill., and Campbell & Todd, Lewiston, Ill.

PIKE'S PEAK CLIMB SEPT. 7

COLORADO SPRINGS, Aug. 22.—The seventh annual Pike's Peak Hill Climb race contest, the biggest competition of the kind in the United States, will be held as usual on Labor Day, Sept. 7. The races are held under the rules and with the sanction of the contest board of the American Automobile Association. Spencer Penrose has given a new trophy that will be contested for annually; the cup a mammoth silver bowl of unique design is, aside from its intrinsic value, a grand prize, being more than one hundred years old and purchased by Mr. Penrose in England.

NEW AUBURN DEALERS

AUBURN, Ind., Aug. 22.—New distributors and dealers who have recently been added to the Auburn organization include:

Joseph Twomey, Inc., West Roxbury, Mass.; South Hills Auburn Co., Mt. Lebanon, Pa.; M. E. Eaker, Clarion, Pa.; Jones Motor Car Co., Throop, Pa.; S. E. Marcott, De Pere, Wis.; Harry Koons Motor Sales, Bellefontaine, Ohio; Lund & Ramsey (Los Altos Garage), Los Altos, Calif.; J. H. MacIntosh, Sacramento, Calif.; Brunson W. French, Hollywood, Calif.; Barnesboro Body Co., Barnesboro, Pa.; Auburn Sales Co., Sharpville, Pa.; Providence Auburn Co., Providence, R. I.; E. G. Gauntt, Fort Wayne, Ind.; A. E. Sworn, Sanborn, New York; Smith Amos Corp., Homestead, Fla.; C. W. Sahl & Co., Modesto, Calif.; J. P. Strom, 1221 MacDonald Ave., Richmond, Calif.; Siemon Motor Co., Greensburg, Pa.

Over 100,000 Essex Cars Produced Thus Far in 1925

Output to Date 15 Per Cent More Than Entire Number Built During 1924, Says Official

DETROIT, Aug. 22.—Upwards of 100,000 Essex cars have been manufactured so far in 1925, the first six cylinder car to attain that number, according to one of the Hudson officials who also stated that this number was 15 per cent more than the entire number of Essex built during 1924.

With production on a volume basis it seems likely that the output for 1925 will see twice as many Essex cars built as for all of last year, despite the fact that 1924 was considered a remarkably successful Essex year.

Not only has the sale been phenomenal in the United States but the demand is also brisk in Great Britain, the Continent and in the various colonial fields. In Canada, the Essex demand has been almost twice as great as in this country.

"This unusual measure of success", said a Hudson official, is all the more remarkable because no new model was introduced, and because more than 95 per cent of Essex business has been centered in the coach model, a type of car which Essex created and named. Essex business has been consistently good with no spurts or let-downs."

BOSTON PLANS RADIO SHOW

BOSTON, Aug. 22.—Boston's annual radio show will be held at Mechanic's Building during the week of October 12 and already space has been sold to a number of the big battery companies who have gone into the radio field, as well as some of the automobile accessory corporations. It will be the fourth show and this year Boston newspapers will feature it extensively.

HAWAIIAN BUSINESS GOOD

SAN FRANCISCO, Aug. 22.—White Truck business done in the Hawaiian Islands for the first half of 1925 was the largest ever done there by this company, according to G. A. Urquhart, vice-president of the White Company, who recently returned from a visit to Walter Beall, formerly of San Francisco, and now general manager for the Schuman Carriage Company of Honolulu, White truck distributors for Hawaii.

FORD CONTROL DENIED

DETROIT, Aug. 22.—Referring to a report published in the New York Morning World recently which stated that Henry Ford had indirect control of the Hudson Motor Car Co., A. Barit, secretary of the company, speaking officially told MOTOR AGE: "The statement that Ford is indirectly in control of the Hudson Motor Car Company is absolutely false. Such rumors have been afloat for a year and a half and have been denied before. There is absolutely nothing to it."



Along Automobile Row



DETROIT.—Schiesel and Crump, 8057 Gratiot avenue, Woodward Motor Sales, 3945 Woodward avenue, Goodwill Motor Co., 8442 Twelfth street and Savage Sales and Service, 815 West Grand boulevard, have been appointed associate dealers for the Oakland line in Detroit.

MINNEAPOLIS.—T. S. Hoff, wholesale representative of the Minneapolis branch of Willys-Overland, Inc., at Fargo, N. D., has been transferred to the Minneapolis headquarters to become sales promotion manager. H. C. Albers, from the Minneapolis Flint branch, will succeed him in Fargo.

LA SALLE, Ill.—The Putnam-Hibbens Motor Car Company has been organized here by S. C. Hibbens, L. S. Putnam and Dayton Keith. Capital stock has been fixed at \$15,000. A garage and sales agency have been opened at 944 First street. The company will distribute the Chevrolet car.

OAKLAND, Cal.—The Lawrence-Rand Company has been appointed Lincoln dealers for the eastern side of San Francisco Bay, according to announcement by the Lincoln Division of the Ford Motor Company. The new firm is composed of H. M. Lawrence, Ford dealer in Oakland for several years, and C. D. Rand of San Francisco, who has handled several high grade cars there.

MILWAUKEE.—Stader Auto Sales Co. has been formed here by O. Stader, formerly an auto dealer at Oconomowoc, Wis., D. W. Weart and A. A. Goulin. The new organization will deal in Rickenbacker cars, according to announcement by the Chidester-Frint, Inc., distributors for Rickenbacker in Wisconsin.

SPRINGFIELD, Ill.—The United Tire & Radio Stores Company, 77 West Washington street, Chicago, has been granted articles of incorporation by the secretary of state. The capital stock has been fixed at 400 shares of no par value. The company will distribute motor vehicle accessories and radio outfits.

CHICAGO.—A. J. Banta has been made assistant general manager of the General Motors Truck Company, Pontiac, Mich. He was formerly Locomobile branch manager in Chicago, was with Maxwell at the Chalmers factory, and then Chicago manager for Maxwell-Chalmers. He recently resigned as sales manager for Rickenbacker.

MOLINE.—The Dean Motor company announces that it will devote its entire time and energy to the sale and service of the Velie automobiles exclusively in its territory here.

SPOKANE, Wash.—Introduction of the Diana straight eight in Spokane was undertaken last week by the Rice Motor company, a concern distributing the Moon car. New quarters were taken on automobile row and a special opening display, including the living Diana, was put on for the first day.

NEW ORLEANS.—The Donnell-Williams Motor Co., dealers in Willys-Knight and Overland cars, opened in Greenville, Miss., recently. O. O. Donnell of Leland, Miss., is president, and W. J. Williams, formerly of Pine Bluff, Ark., is vice-president.

CHICAGO.—The Chevrolet Motor Co., distributors for Chicago, has moved from Automobile Row and is now established in offices in the Wrigley Building, 410 North Michigan avenue.

FREEPORT, Ill.—Charles O. Cromwell, with offices at 2230 First National Bank Building, Detroit, has been appointed Detroit representative, covering auxiliary heads made by the Hofer Mfg. Co. of this city.

CHICAGO.—J. P. Marks is the newly established Chicago wholesale manager for Durant Motors. He was formerly head of the Durant Chicago branch, where he has been succeeded by J. S. Mitchell.

COLUMBUS, O.—The U-Drive-It-Co., now located at 102 East Spring street, Columbus, has started the erection of a modern garage and storage building at 20 E. State street, in which will be housed the concern after about Sept. 15, when the building will probably be completed. The structure is 70x100 feet and will be two stories high. Foundations are designed to carry two additional stories.

SPRINGFIELD, Mass.—R. S. Davey has assumed the position of advertising manager of the American Bosch Magneto Corporation, replacing G. W. Sherin, recently resigned, officials of the company have announced.

SPOKANE.—Bearing & Rim Supply Company, Spokane, and Wire Wheel & Service Company, Portland, Ore., Budd wheel distributors in western Washington and Portland, respectively, announce that they have expanded their businesses to take on four new rim lines, those being Firestone, Hayes, Kelsey and Jackson.

DES MOINES, Ia.—Studebaker dealers and factory officials met in the Hotel Fort Des Moines last week and discussed the new models and the company's recently inaugurated "one-profit" manufacturing program. Factory representatives present included C. A. Vance, F. E. Kennedy, E. J. Dieckhoff, L. O. Nicodemus and G. L. William of Lord & Thomas, L. B. Van Hoesen, manager of the Sheriff Motor Company, local agents, handled preliminary arrangements for the session.

CHICAGO.—B. W. Ruark, for the last three years field secretary of the Automotive Equipment Association, has been made assistant to Commissioner Webster at the association headquarters here and in the future will devote the most of his time to the work of administering the affairs of the association.

LANSING.—D. S. Eddins, general sales manager, Olds Motor Works, announces the appointment of Harold S. Wier as assistant general sales manager of the company. In April, 1919, Mr. Wier joined the sales staff of the Chevrolet Motor Company, serving first in the capacity of factory representative and advancing rapidly to the position of branch manager. Mr. Wier succeeds Leon G. Dodge, who has been placed in charge of the new Oldsmobile wholesale branch in New York City.

ST. LOUIS.—Earnest J. Krause, president of the Earnest J. Krause Motor Car Co., has announced the election of Ralph W. Page to the vice-presidency of the company. The company handles the Moon and the Rolls-Royce cars.

ELGIN, Ill.—Emil Jenny and his sons Emil and George, have closed a deal for the sale of the Jenny Motor Company to R. S. Lord and William Graf. The new owners have changed the name to the L. & C. Chevrolet Company. Lord has been employed by the Jennys as manager for a number of years, while Graf was shop foreman.

PEORIA, Ill.—The Cass Motor Company, of which Cass J. Heintzman is principal owner, has been appointed distributor for the Flint car in Peoria and neighboring counties. Fifteen associate dealers have been named for Peoria and adjoining counties to handle the same line.

DETROIT, Mich.—The Puritan Autoparts Co., which for more than 20 years has been located at the corner of Lafayette and Tenth streets, has moved from that location to new headquarters at 2520-2530 Grand River avenue.

DES MOINES.—P. L. Holt of Oklahoma City has succeeded F. S. Reinhardt as assistant manager of the Ford Motor Co.'s local branch.

BURLINGTON, Ia.—Paul Augsburger, manager of the A. & E. Motor Co., Chevrolet agent in this territory, has leased the building formerly occupied by the Barton Motor Co., and will move immediately.

ROCKFORD, Ill.—Fritz Nelson, manager of the Velie garage, announces plans for a new sales and service plant at a cost of \$30,000. The present Velie garage will become a repair department and storage unit for the new building, which will be completed in the fall.

BOSTON.—The Kelly-Springfield Truck Co. has just moved from 594 Commonwealth avenue to new quarters at 750 Commonwealth avenue.

CINCINNATI.—A. G. Wood of the Wood Motor Co. has announced that William P. Duffy has joined his sales force, selling Moon Six and Diana Eight cars.

LANSING, Mich.—Lorenz Bros., Buick representatives in Lansing, have opened a branch sales and service station at St. Johns which will be in charge of Fred A. Culley. All of the lighter repair work will be done at St. Johns with the heavier repair work being done at the Lorenz plant in Lansing.

BOSTON.—J. S. Harrington, Inc., Springfield distributor for Hudson and Essex, has just placed a sub-agency in that city with Henry's Inc.

CHICAGO.—George F. Bates has stepped from assistant Chicago branch manager of the Diamond T Motor Car Company, builders of trucks, to corporation sales representative of the organization, working out of the general offices and factory at 4517 West Twenty-sixth street.

ATLANTA.—Sam J. Keith, a salesman in the automobile accessory department of the Keith-Simmons Co. of Nashville, Tenn., calling on the city trade there for some time, recently took on a larger territory, the company has announced, and is now also calling on the dealer trade in the adjacent Nashville territory of central Tennessee.

GREAT BARRINGTON, Mass.—More than 1,000 persons attended the opening of John T. Harper's new garage, one of the best equipped in this part of the state. Among them was W. C. Sills, president of the Sills Chevrolet Co. of Boston. General Motors Acceptance Corp. and the Goodyear Tire & Rubber Co. sent representatives. Electrical and floral displays made effective settings for the various models of Chevrolet and Oldsmobiles.

CHICAGO.—The Ray F. Mudd Motor Company, Lincoln and Ford dealer, has completed and opened its new sales and service rooms at 133-141 Madison street, Oak Park, which will become the new headquarters of the company. C. P. Townsend has been appointed manager.

ATLANTA.—Harry Sommers, Inc., distributors of the Packard and the Chrysler line in the Atlanta territory, announce the recent appointment of Tom Hardeman as retail sales manager of the Chrysler department. Joel Davis is in charge of the wholesale department.

WHEATON, Ill.—The Wheaton Auto Sales, Inc., has obtained a site for a Ford agency show room and service station. Duke Duffree will be manager for the company, which is conducting agencies in Naperville and Plainfield, also.

MILWAUKEE.—The Johnson Motor Car Co. of Fond du Lac, Wis., has moved from its former location to new quarters in the garage building at South Limb, its formerly operated by Fred W. Albright. The company is Studebaker dealer for Fond du Lac. It plans a new building at the Albright location, part of which will be devoted to a gasoline and service station.

CHICAGO.—Harry P. Branstetter of Chicago, state distributor for Kissel, headed a delegation of fifteen dealers of Illinois to the factory at Hartford, Wis., recently. Officials of the Kissel company met the dealers at the train in Milwaukee and the remainder of the distance was covered by automobile.

DETROIT.—Woodin & Barnes Co. of Flint, Michigan, Cadillac and GMC truck dealers, have been appointed Oakland dealers for their territory.

With the Associations

Washington Plans Show

WASHINGTON, Aug. 22.—Announcement that plans for the 1926 automobile show which will open here at the Washington Auditorium on January 30, 1926, are complete was made here this week by Rudolph Jose, chairman of the show committee, at regular monthly meeting of the Washington Automotive Trade Association.

E. F. Hallock, manager of the manufacturers' division of the Vacuum Oil Company of New York City, addressed the automotive men at the meeting on "Oil." Mr. Hallock illustrated his talk with lantern slides, showing statistics on the value of oil as a means of lubrication. He said it was important to use the right grade and the right grade at the right time of the year to get best results.

Atlanta Investigates Opinion

ATLANTA, Ga., Aug. 22.—To determine what the automobile owning public, the dealers and others identified with the industry think of the proposed motor title and registration law now before the Georgia legislature, the Atlanta Automobile Association during the early part of August sent a questionnaire to thousands of owners and dealers throughout the state, and reports that replies indicate owners and dealers both are overwhelmingly in favor of the law.

Briefly, this bill provides for the issuance of a certificate of ownership, this certificate to be transferred when the car is resold, similar to a law now in effect in several other states. It is being sponsored by the Atlanta Automobile Association.

Relative to the sales tax bill, it is proposed now to tax wholesalers and manufacturers one mill; retailers two and one-half mills, with the first \$500 gross sales exempted. This bill, if passed, would affect every branch of the automotive business, and it is therefore being vigorously opposed by dealers and distributors through the Atlanta Automobile Association, who contend it would place too heavy a burden on them.

An effort to reduce the capital stock tax from \$1,000 to \$400 maximum also is being made, another measure which would affect nearly all branches of the automotive industry, particularly outside accessory and parts firms doing business in Georgia. Several such companies have discontinued carrying stocks in Georgia because of the cost occasioned by the present capital stock tax.

Golf Features Outing

WASHINGTON, Aug. 22.—Golf matches and a program of athletic events featured the annual outing of the Washington Automotive Trade Association held at the Beaver Dam Golf Club. The entertainment followed a beef steak dinner.

Membership Growing Steadily

KANSAS CITY, Aug. 22.—The membership of the Kansas City Automotive Trades Association has doubled during 1925, in spite of the fact that all members in arrears for their dues have been dropped from the list. The "live" members are adding to their number by inviting guests to their meetings—there were thirty-nine in attendance at the last meeting—and co-operating with the paid secretary of the association in soliciting new members. The last man on the job secured three new applications, and a new man goes with the secretary each day.

The jobbers have practically all joined the association, and are assisting in making the members into better merchants by giving them all the assistance in their power. George Lockeridge, of the Kansas City Auto Supply company spoke at the last meeting on "Service Problems of the Service Man and the Jobber," and there was a lively discussion on how the jobber can help to meet the demands of the garage men in case of "hurry-up" calls.

The present membership of 100 is to be increased to 150 before the end of the year if present plans are realized.

While the work of the association is largely educational, yet the different committees, under the direction of President George W. Arnold, are working out some practical problems in the city.

"Back-lot garages," which are really public garages, and should be taxed as such, and the parking of cars on the streets without lights, and other matters which if rightly regulated would increase the business of the authorized garage man, are being investigated. The big problem of getting all members to study costs, and regulate their business on a cost plus basis, is in the program for the association, as outlined by President Arnold.

Tradesmen Hold Outing

DES MOINES, Ia., Aug. 22.—Two thousand automotive men of this city and their families attended the annual outing at Coney Island and the auto park contained 600 machines of the dealers and distributors. The motor trades bureau of the Chamber of Commerce, headed by C. G. VanVliet, secretary, arranged the event, which continued all afternoon and well into the evening. Automotive business places were closed at noon and the Scotch Highland band of the Ford Motor company and the Herring Motor company band entertained the crowds at an afternoon concert. A special edition of the Des Moines Register greeted the picnickers with full details of their outing. The dance music was furnished by the Manbeck Motor Sales company orchestra.

Exhibit With Merchants

ATLANTA, Aug. 15.—Several of the automotive jobbers in Atlanta handling accessories will take an active part this year in the annual Fall Buyers' Week, to be held under the direction of the Atlanta Merchants & Manufacturers' Association, Monday, August 17 to Saturday, August 22. Accessory distributors co-operating with other jobbers will keep a majority of their salesmen in the house during the week to handle visiting trade, these including the King Hardware Co., the Beck & Gregg Hardware Co., and the Crumley-Sharpe Hardware Co.

The association has been recently conducting a campaign among southern dealers urging them to buy more often and in small quantities as the best means of securing rapid turnover and increased profits, but at the same time to buy in large enough quantity to avoid the hand-to-mouth policy. Officials of the campaign state that it has accomplished very good results, for it has included a series of printed booklets distributed to all dealers in the district, giving the experiences of successful dealers who have practiced these policies as taken out of their own experiences.

An invitation has been extended to all southern dealers to visit the Atlanta markets during the progress of Buyer's Week.

Court Decision Cited

ST. LOUIS, Aug. 22.—When the Supreme Court of the United States in a recent decision defined good will as "The disposition of a pleased customer to return to the place where he has been well treated," Robert E. Lee, manager of the St. Louis Automobile Dealers' Association, lost no time in sending a card to all members of the association, quoting the decision of the court and admonishing the members that the automobile trade should study this kind of law.

A. A. A. Names Californians

SAN FRANCISCO, Aug. 22.—P. J. Walker of Oakland, Cal., a director of the California State Automobile Association, has been named vice-president of the American Automobile Association. Percy E. Towne of San Francisco, also a director in the state organization, has been elected to the board of directors of the A. A. A. Both men are past presidents of the California State Automobile Association.

Sunday Closing Probed

CHICAGO, Aug. 22.—The Chicago Automobile Trade Association has sent a questionnaire to all its members seeking an opinion on the question of closing evenings and Sundays.

Coming Motor Events

Automobile Shows

- Dallas, Tex. Oct. 10-25
Annual Automobile Show, State Fair Automobile Building, under the auspices of the Dallas Automotive Trade Association. J. W. Connell, manager.
- De Pere, Wis. Aug. 31-Sept. 21
Annual Automobile Show under the auspices of the Automobile Division of the Green Bay Association of Commerce.
- Fresno, Cal. Sept. 28-Oct. 3
Fresno Motor Car Dealers Association. Fifteenth Annual Show in connection with Fresno District Fair.
- Grand Rapids, Mich. Sept. 7-12
Grand Rapids Automobile Dealers Association. Seventh Annual Show in connection with West Michigan Fair, Wm. T. Morrissey, manager.
- Oklahoma City, Okla. Sept. 26-Oct. 3
Annual State Fair and Exposition. Passenger cars and accessories.
- Sacramento, Cal. Sept. 5-13
Automobile Exhibits in Diamond Jubilee State Fair.
- Shreveport, La. Oct. 24-Nov. 8
Twentieth Annual State Fair showing passenger cars, trucks and tractors.
- New York Nov. 15-21
Twenty-first Annual Automobile Salon.
- Wheeling W. Va. Sept. 7-12
Wheeling Automobile Dealers Association. Eleventh Annual State Fair. Exposition Building.
- White River Junction, Vt. Sept. 15-18
Nineteenth Annual Twin State Fair. Passenger cars, trucks and accessories. F. L. Davis, manager.
- Chicago Oct. 10-17
Seventh annual Used Automobile Show under auspices of Chicago Automobile Trade Association, at Coliseum.
- Chicago Nov. 5-7
Annual show in connection with convention of National Standard Parts Association, Coliseum.
- Chicago Nov. 9-14
Seventh annual exhibit of the Automotive Equipment Association at Coliseum, in connection with annual convention.

- Chicago Jan. 30-Feb. 6
Twenty-sixth Annual National Automobile Show and Eleventh Annual Automobile Salon.
- Danbury, Conn. Oct. 5-10
Eighth annual fair, Danbury Fair Auto Building, under direction of Danbury Agricultural Society, passenger cars, trucks, tractors, accessories, etc., H. Lage, manager.
- Boston Oct. 10-17
World's Rubber and Tropical Exposition, Mechanics Hall, Chester I. Campbell, manager.
- Chicago Sept. 28-Oct. 3
Fourteenth annual Safety Congress and Exhibit, Rainbow Room, Hotel Winton, under direction of National Safety Council, A. M. Smith, business manager.
- Salt Lake City Oct. 1-7
Third annual Automobile Show and forty-seventh annual State Fair in Coliseum Building, Wm. D. Sutton, supervisor of Automobile Show.
- Boston Oct. 12-17
Annual radio show in Mechanics' Building. Shelton Fairbanks, manager.
- Newark, N. J. Jan. 15-22
Nineteenth annual Automobile Show under auspices of New Jersey Automobile Exhibition Co., Chamber of Commerce Building.
- New York Sept. 18-19
Meeting of National Battery Manufacturers' Association at Commodore Hotel.
- New York Jan. 9-15
National Automobile Show in Grand Central Palace.

Races

- Altoona, Pa. Sept. 7
Charlotte, N. C. Nov. 11
Fresno, Cal. Oct. 3
Los Angeles, Cal. Nov. 26
Monza, Italy Sept. 6
Italian Grand Prix Race.
Syracuse, N. Y. Sept. 19
Rockingham Oct. 17
Baltimore Oct. 24

Conventions

- Buenos Aires, Argentine Oct. 3-13
Pan-American Road Congress.
- Cleveland Sept. 14-19
Annual Convention and Exposition of American Society for Steel Treating.
- Cleveland Sept. 15-16
S. A. E. production meeting and exhibition.
- Des Moines, Ia. Nov. 12-13
Automotive Merchants' Association Convention.
- Montreal, Que. Oct. 7-10
Fall convention of the Motor and Accessory Manufacturers Association.
- Philadelphia September
S. A. E. Automotive Transportation meeting.
- Pittsburgh, Pa. Oct. 12-14
Pennsylvania Automotive Association Convention.
- St. Louis Nov. 17-19
Annual Convention of National Tire Dealers' Association.
- Eaglesmere Park, Pa. Sept. 14-17
General meeting of the Automotive Electric Association.
- Wrightsville Beach, N. C. Sept. 7-8
Annual meeting of the North Carolina Automotive Trades Association.
- Montreal Oct. 13-14
Convention of the National Association of Automobile Insurance Companies.
- New York Jan. 11-13
Second World Motor Congress, under auspices of National Automobile Chamber of Commerce.

Foreign Shows

- Berlin, Germany Nov. 26-Dec. 6
Annual Automobile Show in the Kaiserdamm.
- Buenos Aires, Argentina Oct. 3-13
Pan-American Road Congress.
- London, England Oct. 8-17
Olympia Passenger Car Show.
- London, England Oct. 29-Nov. 7
Annual Truck Show.

Indiana S. A. E. Committee Meets to Plan for Fall

INDIANAPOLIS, Aug. 22.—The meetings and papers committee of the Indiana Section, S. A. E., held its first meeting this week to plan its fall meetings and papers. Fredrick E. Moskovics, president of Stutz, has accepted the chairmanship of the committee and in the conference on the year's work were George T. Briggs, sales manager of Wheeler-Schebler Co., section chairman; Raymond F. Buckley, chief engineer of Robt. I. Hassler, Inc., secretary; Wm. Guy Wall and Fred Duesenberg, both of whom have served on the meeting and papers committee of the section; C. A. Trask, treasurer of the section, and O. C. Berry, former section chairman.

The schedule mapped out calls for a series of meetings beginning in October and a definite subject has already been assigned to all but two meetings of the year.

Final announcement of the fall schedule with meeting subjects will be made by the middle of September, by which time the noted speakers tagged by the

committee will have time to accept the honors which he live "Hoosier" committee has thrust on them.

GERMAN DEAL DENIED

NEW YORK, Aug. 22.—Rumors in the financial district that an American automobile company is negotiating for control of the Aga Motor Works, Germany, the Stinnes property that has lately been in difficulties, could not be confirmed. General Motors specifically denied that their company was interested in the reported deal. It is known the Aga and other German companies have been offered to American firms, but apparently without result.

Moon Announces Refinements

(Continued from Page 15)

which conceals the gasoline tank and the rear frame horns, giving a much neater appearance to the rear of the car. Mouldings have been entirely elimi-

nated on all the roadster models of the Moon cars for 1926, which gives the car a distinctive European effect. This effect is achieved by offsetting the body panels at approximately the same location formerly occupied by a moulding. This offset eventually works itself over the cowl and hood and forms an arrow head, with its apex at the rear end of the radiator shell. The arrow, however, is not terminated abruptly at this point but spreads out into a $\frac{3}{4}$ -in. moulding running down the front edge of the hood, thus giving a neat and distinctive appearance at this point.

The upper portion forming the offset panel is given a darker color of the two tone color combination, while a contrasting stripe is applied at the meeting point of the two colors.

The body of the Moon roadster for 1926 is roomier both in the front and in the rear compartments and numerous refinements such as an entirely removable top have been incorporated. In general the other models of the Moon cars for 1926 are being changed to conform in thought with the roadster models.

America Invites World to Second Transport Congress

**Sales, Advertising and Service
Methods Are to Be Principal
Topics at Meeting**

NEW YORK, Aug. 22.—Invitations are being mailed to all countries of the globe inviting automobile men everywhere to attend the second World Motor Transport Congress which will be held in New York January 11-13, 1926, during the National Automobile Show.

Assurances of participation have already been received from 50 countries speaking 16 different languages.

The National Automobile Chamber of Commerce is the host on this occasion which is a continuation of the first congress held at Detroit in May, 1924.

The economics and utility of motor transport were the chief topics at the first conference. This time emphasis is to be placed on sales, advertising, and service methods.

During the first five months of this year there were 228,537 American cars and trucks shipped to 101 countries and colonies of the globe, a record far exceeding any previous mark in the export business. It is felt that most parts of the world have passed the preliminary stages in motor transportation and are ready to study up-to-date selling methods.

The congress is to be conducted on the basis of exchange of experiences. The American manufacturers hope to learn a great deal from visitors from abroad and in return they will provide complete exhibits of the way in which motor transportation is merchandised in this country.

The meeting is to be an open one to dealers, manufacturers, engineers and others in foreign countries who are interested in the American automobile industry. Special invitations are being sent to delegates who attended in 1924.

Nash Motors Co. Expects Record Business in August

KENOSHA, Wis., Aug. 22.—Nash Motors in July did three times the business of the same month a year ago. Added to this, it is pointed out by the company officials that increased production because of the heavy demand will make August, in point of both production and sales, the greatest month the company has ever experienced.

"In spite of a definite schedule for greatly increased production in August at both the Kenosha and Milwaukee plants," said E. H. McCarty, general sales manager, "orders already on hand are greatly in excess of the August production schedule. In fact, at this time these orders are 30 per cent greater than production possibilities and this figure will be increased each day as additional orders for August delivery are received by the factory."

SQUEEKS and RATTLES

TOO EFFECTIVE



Jones, who makes a point of padlocking his new car by the front wheel to a lamp-post, realizes the justice of the maker's claim that the spare wheel with which it is fitted "can be fixed by anyone in two minutes."

—Punch.

Cars—metics

"Was your wife injured or the car damaged in the collision?"

"Oh, nothing to speak of—just a little paint chipped off."

—Motor West.

Leap for Life

"These aeroplanes are getting more dangerous than ever."

"Someone killed?"

"No, but I see a chap got married in one yesterday."

—Bulletin, Sydney.

A girl can be gay in a little coupe:

In a taxicab she can be jolly,

But the girl worth while

Is the girl who can smile

When you take her home on a trolley.

—Yale Record.

STINNES IS HARD HIT

BERLIN, Aug. 12.—(By Mail)—Edmund Stinnes, oldest son of the late Hugo Stinnes, has found it impossible to meet the payroll of the Aga Motor Works, in Berlin requiring 100,000 marks. The plant employs 2,000 persons and is reported to be on the verge of a shutdown. Stinnes is said to have asked the Prussian government for 3,000,000 marks credit. The tie-up of money is the result of a controversy between Stinnes and the Berlin banks. The Aga plant builds a small type of automobile which has a good market in Germany. Production averaged 500 cars a month.

Hacking Sees Great Market In British Isles for U. S. Cars

TOLEDO, Aug. 22.—That the coming market for commercial cars in the British Isles furnishes a greater opportunity for American manufacturers than the passenger car market was the opinion expressed here by Col. Alfred Hacking, secretary of the Motor Manufacturers' &

Wheel-barrows?

"So you come from America, the place where they make all the cars?"

"Yes. But I would have you know that we make other things besides cars in America."

"I know. I've ridden in them."

—Manchester Evening News.

Judging by the divorce records the girls nowadays are being married with demountable wedding rings.

—Judge.

Ed (in motor car)—This controls the brake. It is put on quickly in case of emergency.

Co-ed—Oh, I see. Something like a kimono?

—U. S. Pointer.

A dentist recently gave a wireless talk. I understand that he commenced by making the usual assurance that it wouldn't hurt a bit.

—Passing Show.

THEN CAME THE AVALANCHE



Sympathetic Onlooker—If it's your cap you're looking for, it's hanging on the radiator.

—The Tatler.

Traders' society of London, at a luncheon tendered him at the Toledo Club last Thursday by John N. Willys, president of the Willys-Overland Co.

Sir William Letts, managing director of Willys-Overland-Crossley, Ltd., and other Overland officials were present at the luncheon.

Hackling declared that tariff restrictions and the specifications demanded by the British public differing as they do so much from American types were against the development of trade in those lines but left almost an open field for the commercial car.

He visited the Willys-Overland plant while here. Marvelous roads of the mid-western states and labor-saving machinery in automobile plants were two of the things Colonel Hacking was most impressed with on his trip.

NEW AUTOMOBILE LACQUER

NEW YORK, August 22.—The Zeller Lacquer Mfg. Co. has announced that it is now producing a lacquer for automobile finishing. This lacquer is sold under the trade name of "Auto Zellac."

Prices and Weights of Current Passenger Car Models

| SHIP. WT. PASS. BODY STYLE. PRICE | | | | SHIP. WT. PASS. BODY STYLE. PRICE | | | | SHIP. WT. PASS. BODY STYLE. PRICE | | | | SHIP. WT. PASS. BODY STYLE. PRICE | | | |
|-----------------------------------|-----|----------------|---------|-----------------------------------|-----|------------------|---------|--|-----|--------------------|---------|-----------------------------------|-----|-------------------|---------|
| AJAX | | | | CHEVROLET | | | | DUESENBERG | | | | HERTZ | | | |
| 108 in. W. B. | | | | "Superior" (Series K) | | | | Straight "8" | | | | D-1 | | | |
| 2210 | 5-p | Touring | \$865 | 1755 | 2-p | Roadster | \$525 | 3920 | 2-p | Roadster | † | 3360 | 5-p | Sedan | \$1,695 |
| 2410 | 5-p | Sedan | 995 | 1870 | 5-p | Touring | 525 | 3700 | 4-p | Roadster | † | HUDSON "Super Six" | | | |
| ANDERSON "41" | | | | 2015 | 2-p | Utility Coupe | 675 | 3700 | 4-p | Phaeton | \$6,650 | 3450 | 5-p | Coach | 1,195 |
| 2650 | 5-p | Touring | \$1,195 | 2110 | 5-p | Coach | 695 | 3920 | 4-p | Phaeton | † | 3425 | 4-p | Brougham 4 d. | 1,495 |
| 2675 | 4-p | Sp. Touring | 1,445 | 2220 | 5-p | Sedan | 775 | 3980 | 4-p | Sp. Phaeton | † | 3675 | 7-p | Sedan | 1,695 |
| 2925 | 2-p | Coupe | 1,425 | CHRYSLER "Four" | | | | 4500 | 7-p | Sedan | † | HUPMOBILE "R" | | | |
| 2875 | 5-p | Sedan | 1,695 | (109 in. W. B.) | | | | †Manufacturers do not quote list prices. | | | | 2595 | 2-p | Roadster | \$1,225 |
| 2925 | 5-p | Sp. Sedan | 1,895 | 2390 | 5-p | Touring | \$895 | DU PONT "D" | | | | 2705 | 5-p | Touring | 1,225 |
| "50" | | | | 2440 | 2-p | Club Coupe | 995 | 3300 | 2-p | Roadster | \$2,600 | 2760 | 2-p | Coupe | 1,850 |
| 2975 | 7-p | Touring | 1,595 | 2590 | 5-p | Coach | 1,045 | 3550 | 5-p | Touring | 2,600 | 2875 | 5-p | Club Sedan | 1,375 |
| \$200 | 7-p | Sedan | 1,945 | 2680 | 5-p | Std. Sedan | 1,095 | 3800 | 7-p | Touring | 2,750 | "E" | | | |
| APPERSON "6" | | | | "Six" (112¾ in. W. B.) | | | | 3550 | 5-p | Touring Sedan | 3,400 | 3050 | 2-p | Roadster | 1,795 |
| 3100 | 5-p | Phaeton | \$1,575 | 2805 | 4-p | Roadster | \$1,625 | 2225 | 5-p | Touring | 810 | 3270 | 4-p | Roadster | 1,895 |
| 3130 | 5-p | Sp. Phaeton | 1,650 | 2785 | 5-p | Phaeton | 1,395 | 2395 | 5-p | Spec. Touring | 930 | 3185 | 5-p | Touring | 1,795 |
| 3145 | 4-p | Coupe | 2,050 | 2895 | 5-p | Coach | 1,445 | 2395 | 4-p | Coupe | 1,090 | 3295 | 2-p | Coupe | 2,095 |
| 3570 | 5-p | Sp. Sedan | 2,100 | 2935 | 4-p | Coupe | 1,795 | 2505 | 4-p | Spec. Coupe | 1,160 | 3295 | 4-p | Coupe | 2,095 |
| 3520 | 5-p | Brougham | 2,050 | 2995 | 5-p | Brougham | 1,865 | 2505 | 5-p | Sedan | 1,150 | 3410 | 5-p | Sedan | 2,195 |
| "ST 8" | | | | 3060 | 5-p | Sedan | 1,695 | DURANT A-22 | | | | JEWETT "23-25" | | | |
| 3520 | 5-p | Sp. Phaeton | 1,995 | 3085 | 5-p | Imperial Sedan | 1,995 | 2779 | 5-p | Sedan | 1,395 | 3050 | 4-p | DeLuxe Road. | \$1,500 |
| 3750 | 4-p | Coupe | 2,450 | 3090 | 5-p | Crown Sedan | 2,095 | 2900 | 5-p | Coach | 1,195 | 3340 | 5-p | DeLuxe Touring | 1,320 |
| 3770 | 5-p | Brougham | 2,450 | (118¾ in. W. B.) | | | | 2779 | 5-p | Sedan | 1,395 | 3450 | 3-p | Coach 2d. | 1,245 |
| 3790 | 5-p | Sedan | 2,595 | 3225 | 5-p | Town Car | 3,725 | 2900 | 5-p | Sedan | 1,595 | 3625 | 5-p | DeL. Coach 2d. | 1,400 |
| AUBURN | | | | CLEVELAND "31" | | | | ELCAR "4-55" | | | | 3800 | 7-p | DeLuxe Sedan | 1,680 |
| "6-66" | | | | 2325 | 5-p | Touring | \$ 895 | 2779 | 5-p | Sedan | 1,395 | JORDAN Series "A" | | | |
| 4-p | 4-p | Sport-Roadster | 1,495 | 2580 | 5-p | Sedan | 1,195 | 3700 | 5-p | Sp. Touring | 2,165 | 3330 | 2-p | Playboy Road. | \$2,275 |
| 5-p | 5-p | Touring | 1,395 | "43" | | | | 3000 | 3-p | Coupe Roadster | 2,315 | 3340 | 5-p | Touring | 2,275 |
| 5-p | 5-p | Brougham | 1,595 | 2750 | 5-p | Touring | 1,095 | 3245 | 5-p | Touring | 1,595 | 3450 | 3-p | Friendly "g" | 2,575 |
| 5-p | 5-p | Sedan | 1,795 | 2810 | 5-p | Touring De Luxe | 1,195 | 3310 | 4-p | Sp. Touring | 2,050 | 3625 | 5-p | Brougham | 2,575 |
| 5-p | 5-p | Wanderer | 1,845 | 2910 | 5-p | Sp. Touring | 1,295 | 3245 | 4-p | Coupe | 2,195 | 3520 | 4-p | Victoria | 2,475 |
| "8-88" | | | | 3000 | 5-p | Coach | 1,295 | 3595 | 5-p | Sedan | 2,285 | 3525 | 5-p | Sedan | 2,675 |
| 4-p | 4-p | Sport Roadster | 1,975 | 3190 | 5-p | Sedan De Luxe | 1,695 | 2715 | 5-p | Touring | 1,285 | 3470 | 7-p | Sedan | 2,925 |
| 5-p | 5-p | Touring | 1,995 | 3190 | 5-p | Sport Sedan | 1,725 | 2965 | 5-p | Brougham | 1,760 | 3800 | 7-p | Suburban Sedan | 3,375 |
| 5-p | 5-p | Brougham | 2,250 | COLE "MASTER" | | | | FLINT "55" | | | | KISSEL "55" | | | |
| 5-p | 5-p | Sedan | 2,350 | 3675 | 4-p | Volante Touring | \$2,325 | 3325 | 4-p | Sport Roadster | \$1,950 | 3180 | 2-p | Speedster | \$1,895 |
| 7-p | 7-p | Sedan | 2,550 | 3795 | 7-p | West. Touring | 2,325 | 3245 | 5-p | Touring | 1,595 | 3360 | 5-p | Sp'dster De Luxe | 2,185 |
| 5-p | 5-p | Wanderer | 2,400 | 3675 | 4-p | Aero-Vol. Tour. | 2,475 | 3310 | 4-p | Sp. Touring | 2,050 | 3430 | 4-p | Speedster | 1,995 |
| BUICK | | | | 4055 | 5-p | Brouette Sedan | 3,225 | 3245 | 4-p | Coupe | 2,195 | 3540 | 5-p | Sp'dster De Luxe | 2,285 |
| "Standard" | | | | 4000 | 7-p | Royal Sedan | 3,225 | 3595 | 5-p | Sedan | 2,285 | 4070 | 7-p | Enc. Speedster | 2,285 |
| 2-p | 2-p | Roadster | \$1,125 | 4100 | 7-p | Royal Limousine | 3,825 | 2715 | 5-p | Touring | 1,285 | 3190 | 4-p | Enc. Sp'd'r DeL. | 2,785 |
| 5-p | 5-p | Touring | 1,150 | CUNNINGHAM "V-6" | | | | 2940 | 5-p | Sedan 4 d. | 1,680 | 2980 | 5-p | Tourster | 1,895 |
| 2-p | 2-p | Coupe | 1,195 | 4600 | 7-p | Touring | \$6,650 | 2965 | 5-p | Brougham | 1,760 | 3170 | 5-p | Tourster De L. | 2,085 |
| 4-p | 4-p | Coupe | 1,275 | 4500 | 4-p | Sp. Touring | 6,150 | 3325 | 4-p | Sport Roadster | \$1,950 | 2980 | 5-p | Phaeton | 1,685 |
| 5-p | 5-p | 4d. Sedan | 1,495 | 4700 | 4-p | Coupe | 7,600 | 3245 | 5-p | Touring | 1,595 | 3170 | 5-p | Phaeton De L. | 1,885 |
| 5-p | 5-p | 2d. Sedan | 1,195 | 5000 | 6-p | Limousine | 8,100 | 3310 | 4-p | Sp. Touring | 2,050 | 3430 | 4-p | Touring | 1,785 |
| "Master" | | | | DAGMAR "6-70" | | | | 3245 | 4-p | Coupe | 2,195 | 3540 | 5-p | Touring De L. | 1,985 |
| (120 in. W. B.) | | | | 3750 | 4-p | Roadster | \$3,500 | 3595 | 5-p | Sedan | 2,285 | 4070 | 7-p | Coupe De Luxe | 2,585 |
| 2-p | 2-p | Roadster | 1,250 | 3800 | 4-p | Sp. Tourer | 3,500 | 2715 | 5-p | Touring | 1,285 | 4010 | 7-p | Brougham Sedan | 1,995 |
| 5-p | 5-p | Touring | 1,295 | 3700 | 4-p | Phaeton | 3,500 | 3245 | 4-p | Coupe | 2,195 | 4070 | 7-p | Broug. Sed. DeL. | 2,685 |
| 5-p | 5-p | Sedan | 1,495 | 4200 | 4-p | Petite Coupe | 4,500 | 3595 | 5-p | Sedan | 2,285 | 4010 | 7-p | Brougham 2 d | 1,795 |
| 5-p | 5-p | 2d. Sedan | 1,395 | 4200 | 4-p | Petite Sedan | 4,500 | 3565 | 5-p | Brougham 4 d. | 2,785 | 4070 | 7-p | Sedan De Luxe | 3,285 |
| (128 in. W. B.) | | | | 4500 | 4-p | De Luxe Coupe | 4,750 | 2715 | 5-p | Touring | 1,285 | 4010 | 7-p | Berline Sed. DeL. | 3,385 |
| 3-p | 3-p | Sp. Roadster | 1,495 | 4700 | 5-p | Sedan | 4,700 | 2940 | 5-p | Sedan 4 d. | 1,680 | 3580 | 5-p | Victoria | 2,285 |
| 5-p | 5-p | Sp. Touring | 1,525 | 4890 | 7-p | Sedan | 4,750 | 2965 | 5-p | Brougham | 1,760 | 3800 | 7-p | Victoria De Luxe | 2,685 |
| 4-p | 4-p | Country Club | 1,765 | DAVIS "90" | | | | FORD | | | | 3325 | 4-p | Speedster | 2,195 |
| 4-p | 4-p | Coupe | 1,795 | 3100 | 4-p | Roadster | 2,185 | Without Starter and Dem. Rims | | | | 3245 | 5-p | Speedster De L. | 2,485 |
| 5-p | 5-p | Brougham Sedan | 1,925 | 3200 | 4-p | Sp. Touring | 1,985 | 1369 | 2-p | Runabout | \$260 | 3310 | 4-p | Speedster | 2,295 |
| 7-p | 7-p | Sedan | 1,995 | 3150 | 5-p | Touring | 1,785 | 1494 | 5-p | With Balloon Tires | 305 | 3450 | 3-p | Speedster De L. | 2,585 |
| 4-p | 4-p | Victoria | 3,095 | 3400 | 3-p | Coupe | 2,345 | 2965 | 5-p | Touring | 290 | 3625 | 5-p | Speedster De L. | 2,585 |
| Custom Built | | | | 3500 | 5-p | Sedan | 2,345 | 3325 | 4-p | With Balloon Tires | 335 | 3520 | 4-p | Enc. Sp'd'r DeL. | 2,985 |
| (132 in.) | | | | DAVIS "90" | | | | With Starter and Dem. Rims | | | | 3310 | 4-p | Tourster | 2,195 |
| Roadster | | | | 2650 | 4-p | M. o'War Road. | \$1,495 | 1521 | 2-p | Runabout | \$45 | 3430 | 4-p | Tourster De L. | 2,385 |
| (138 in. W. B.) | | | | 2915 | 4-p | Legionaire Tour. | 1,495 | 1644 | 5-p | With Balloon Tires | 370 | 3540 | 5-p | Phaeton | 1,985 |
| 7-p | 7-p | Touring | 3,250 | 2750 | 5-p | Phaeton | 1,895 | 1749 | 2-p | Touring | \$75 | 3580 | 5-p | Phaeton De Luxe | 2,185 |
| Phaeton | | | 3,250 | 3070 | 5-p | Sedan | 1,595 | 1882 | 5-p | With Balloon Tires | 400 | 3625 | 5-p | Touring | 2,085 |
| 5-p | 5-p | Coupe | 3,250 | 3065 | 5-p | Imperial Sedan | 1,795 | 1927 | 5-p | Coupe | 520 | 3700 | 5-p | Touring De Luxe | 2,285 |
| 5-p | 5-p | Sedan | 4,000 | "91" | | | | 3325 | 4-p | With Balloon Tires | 545 | 3750 | 5-p | Coupe | 2,485 |
| 4990 | 7-p | Suburban | 4,150 | 2885 | 4-p | Roadster | 1,795 | 3325 | 4-p | Sedan, Tudor | 580 | 3800 | 7-p | Coupe De Luxe | 2,885 |
| 4655 | 7-p | Imperial | 4,485 | 3020 | 5-p | Phaeton | 1,695 | 3325 | 4-p | With Balloon Tires | 605 | 3800 | 7-p | Sedan | 2,395 |
| CASE J. I. C. | | | | 3245 | 5-p | Sedan | 1,895 | 3325 | 4-p | Sedan, Fordor | 660 | 3800 | 7-p | Broug. Sed. DeL. | 2,985 |
| 2860 | 3-p | Roadster | \$1,840 | 3245 | 5-p | Imperial Sedan | 2,095 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Sedan 2 d. | 2,195 |
| 2890 | 5-p | Touring | 1,885 | 3215 | 5-p | Berline Sedan | 2,095 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Sedan De Luxe | 3,485 |
| 2970 | 5-p | Sp. Touring | 1,885 | DIANA "St. 8" | | | | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Berl. Sed. De L. | 3,585 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2970 | 5-p | Roadster | \$1,895 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria | 2,585 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2990 | 5-p | Phaeton | 1,895 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 3245 | 5-p | Std. Sedan 2d. | 1,995 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 3245 | 5-p | DeLuxe Sedan | 2,195 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 3130 | 5-p | Cabriolet | 2,095 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 3140 | 5-p | Brougham | 2,095 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | DODGE BROTHERS | | | | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2473 | 2-p | Roadster | \$ 855 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2593 | 2-p | Special Roadster | 955 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2567 | 5-p | Touring | 875 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2695 | 5-p | Spec. Touring | 975 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2708 | 2-p | Coupe "B" | 960 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2823 | 2-p | Spec. Coupe "B" | 1,060 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 2823 | 2-p | "B" Sedan | 1,045 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 3077 | 5-p | Spec. "B" Sedan | 1,145 | 3325 | 4-p | With Balloon Tires | 685 | 3800 | 7-p | Victoria De Luxe | 2,985 |
| 2970 | 5-p | Sp. Touring | 1,885 | 3077 | 5-p | Spec. "B" Sedan | 1,145 | 3325 | 4-p | | | | | | |

Prices and Weights of Current Passenger Car Models

SHIP. WT. PASS. BODY STYLE. PRICE

| LOCOMOBILE "48" | | | |
|-----------------|-----|-----------------|----------|
| 5280 | 4-p | Sportif Tour | \$ 7,460 |
| 5330 | 7-p | Touring | 7,460 |
| 5630 | 5-p | Victoria Sedan | 10,050 |
| 5464 | 7-p | Brougham | 10,040 |
| 5640 | 7-p | Touring Lim. | 9,500 |
| 5688 | 7-p | Enc. Drive Lim. | 10,050 |
| 5600 | 7-p | Cabriolet | 10,300 |

| "J-8" | | | |
|-------|-----|----------|-------|
| ..... | 2-p | Roadster | 2,150 |
| ..... | 5-p | Touring | 1,785 |
| ..... | 5-p | Sedan | 2,285 |
| ..... | 5-p | Brougham | 2,285 |

| McFARLAN "6" | | | |
|--------------|-----|----------------|---------|
| "SV" | | | |
| 3700 | 2-p | Roadster | \$2,650 |
| ..... | 2-p | Spec. Roadster | 2,900 |
| 3600 | 5-p | Touring | 2,650 |
| ..... | 7-p | Touring | 2,750 |
| 3850 | 4-p | Coupe | 3,180 |
| 3850 | 5-p | Sedan | 3,180 |
| ..... | 5-p | Spec. Sedan | 3,180 |
| 3850 | 7-p | Sedan | 3,280 |
| ..... | 5-p | Sub. Sedan | 3,380 |
| ..... | 7-p | Sub. Sedan | 3,480 |
| ..... | 5-p | Brougham 4 d. | 3,180 |

| "TV" | | | |
|-------|-----|-------------|-------|
| 4000 | 2-p | Roadster | 5,400 |
| 4600 | 4-p | Sp. Touring | 5,600 |
| 4900 | 4-p | Coupe | 6,720 |
| 5200 | 4-p | Tour. Sedan | 6,720 |
| 5200 | 7-p | Tour. Sedan | 6,810 |
| ..... | 6-p | Sedan | 6,720 |
| ..... | 7-p | Sedan | 6,810 |
| ..... | 7-p | Spec. Sedan | 6,810 |
| ..... | 7-p | Enc. Sedan | 7,110 |
| ..... | 7-p | Sub. Sedan | 7,110 |
| 5200 | 7-p | Town Car | 9,000 |

| MARION "74" | | | |
|-------------|-----|-----------------|---------|
| 3695 | 2-p | Roadster | \$3,165 |
| 3604 | 5-p | Phaeton | 3,295 |
| 3704 | 7-p | Touring | 3,295 |
| 3799 | 5-p | Brougham Coupe | 3,295 |
| ..... | 4-p | Victoria Coupe | 3,295 |
| ..... | 2-p | Std. Coupe | 3,295 |
| 3869 | 5-p | Sedan | 3,295 |
| 3869 | 5-p | Sedan De Luxe | 3,775 |
| 3899 | 7-p | Sedan | 3,370 |
| 3974 | 7-p | Sedan De Luxe | 3,850 |
| 3969 | 5-p | Sedan Limousine | 3,900 |
| 3999 | 7-p | Sedan Limousine | 3,975 |

| MERCER "6" | | | |
|------------|-----|-----------------|---------|
| 3860 | 3-p | Runabout | \$4,500 |
| 3950 | 6-p | Touring | 4,500 |
| 3900 | 4-p | Sporting | 4,500 |
| 4070 | 4-p | Coupe | 6,250 |
| 4240 | 5-p | Sport Sedan | 6,250 |
| 4350 | 4-p | Tour. Limousine | 6,500 |
| 4300 | 4-p | Brougham | 6,500 |

| MOON Series "A" | | | |
|-----------------|-----|-----------------|---------|
| 2490 | 5-p | Roadster | \$1,395 |
| 2675 | 3-p | Cab. Roadster | 1,695 |
| 2510 | 5-p | Touring | 1,295 |
| 2750 | 5-p | Coach de Luxe | 1,495 |
| 2750 | 5-p | DeL. Sedan 2d. | 1,695 |
| 2850 | 5-p | Std. Sedan 4d. | 1,595 |
| 3850 | 5-p | DeLux Sedan 4d. | 1,785 |

| Newport | | | |
|---------|-----|--------------|-------|
| 2760 | 5-p | Touring | 1,495 |
| 2920 | 5-p | Sedan | 1,815 |
| 3090 | 5-p | Petite Sedan | 1,915 |

| Metropolitan | | | |
|--------------|-----|-----------|-------|
| 2860 | 5-p | Touring | 1,515 |
| 3020 | 5-p | Sedan | 1,995 |
| 3190 | 5-p | Sp. Sedan | 2,095 |

| London | | | |
|--------|-----|--------------|-------|
| 3270 | 5-p | Sp. Touring | 1,985 |
| 3590 | 5-p | Petite Sedan | 2,540 |

| NASH "Special" | | | |
|----------------|-----|-----------|---------|
| 2870 | 2-p | Roadster | \$1,135 |
| 2980 | 5-p | Touring | 1,135 |
| 3120 | 5-p | Sedan 2d | 1,265 |
| 3300 | 5-p | Sedan 4d. | 1,545 |

| "Advanced" (121 in. W. B.) | | | |
|----------------------------|-----|-----------|-------|
| 3320 | 3-p | Roadster | 1,375 |
| 3400 | 5-p | Touring | 1,375 |
| 3550 | 5-p | Sedan 2 d | 1,485 |

| "Advanced" (127 in. W. B.) | | | |
|----------------------------|-----|------------|-------|
| 3480 | 7-p | Touring | 1,525 |
| 3640 | 4-p | Victoria | 2,090 |
| 3750 | 5-p | Coupe 4 d. | 2,190 |
| 3830 | 7-p | Sedan | 2,290 |

| OAKLAND "6" | | | |
|-------------|-----|--------------|---------|
| ..... | 5-p | Touring | \$1,025 |
| ..... | 5-p | Coach | 1,095 |
| ..... | 3-p | Landau Coupe | 1,125 |
| ..... | 5-p | Sedan | 1,195 |
| ..... | 5-p | Landau Sedan | 1,295 |

| OLDSMOBILE "30" | | | |
|-----------------|-----|-------------|-------|
| ..... | 5-p | Touring | \$875 |
| ..... | 5-p | Sp. Touring | 980 |
| ..... | 5-p | Coach | 950 |

SHIP. WT. PASS. BODY STYLE. PRICE

| OLDSMOBILE (Cont'd) | | | |
|---------------------|-----|---------------|-------|
| ..... | 5-p | De Luxe Coach | 1,040 |
| ..... | 5-p | Sedan | 1,025 |
| ..... | 5-p | De Luxe Sedan | 1,115 |

| OVERLAND "91" 4 (100 in. W. B.) | | | |
|---------------------------------|-----|----------------|-------|
| 1919 | 5-p | Touring | \$495 |
| ..... | 2-p | Coupe | 625 |
| 2205 | 5-p | Sedan De Luxe | 695 |
| 2202 | 5-p | Std. Sedan 2d. | 645 |
| "93" 6 (112 3/4 in. W. B.) | | | |
| 2443 | 5-p | Sta. Sedan | 895 |
| 2584 | 5-p | Sedan DeLuxe | 1,095 |

| PACKARD "6" (126 in. W. B.) | | | |
|-----------------------------|-----|-----------------|---------|
| 3643 | 4-p | Roadster | \$2,785 |
| 3653 | 5-p | Touring | 2,585 |
| 3595 | 4-p | Sp. Touring | 2,750 |
| 3753 | 4-p | Coupe | 2,585 |
| 3937 | 5-p | Sedan | 2,585 |
| (133 in. W. B.) | | | |
| 3793 | 7-p | Touring | 2,785 |
| 4043 | 7-p | Sedan | 2,785 |
| ..... | 5-p | Club Sedan | 2,725 |
| 4143 | 7-p | Sedan Limousine | 2,885 |

| "8" (136 in. W. B.) | | | |
|---------------------|-----|-------------|-------|
| 4060 | 4-p | Runabout | 3,950 |
| 4090 | 5-p | Touring | 3,750 |
| 4023 | 4-p | Sp. Touring | 3,900 |
| 4242 | 4-p | Coupe | 4,650 |
| 4528 | 5-p | Sedan | 4,750 |
| ..... | 2-p | Coupe | 5,775 |

| (143 in. W. B.) | | | |
|-----------------|-----|-----------------|-------|
| 4199 | 7-p | Touring | 3,950 |
| ..... | 5-p | Club Sedan | 4,890 |
| 4655 | 7-p | Sedan | 5,000 |
| 4710 | 7-p | Sedan Limousine | 5,100 |

| PAIGE "21-24" | | | |
|---------------|-----|---------------|---------|
| 3875 | 4-p | Phaeton | \$2,165 |
| 3935 | 7-p | Phaeton | 2,165 |
| ..... | 5-p | Sedan De Luxe | 2,395 |
| 4325 | 7-p | Sedan De Luxe | 2,840 |

| PEERLESS "6-72" (126 in. W. B.) | | | |
|---------------------------------|-----|---------|---------|
| 3175 | 5-p | Touring | \$1,895 |
| 3425 | 5-p | Coupe | 2,295 |
| 3500 | 5-p | Sedan | 2,395 |

| (133 in. W. B.) | | | |
|-----------------|-----|-----------|-------|
| 3275 | 2-p | Roadster | 2,195 |
| 3300 | 7-p | Touring | 1,995 |
| 3700 | 7-p | Sedan | 2,595 |
| 3825 | 7-p | Limousine | 2,695 |

| "8-67" | | | |
|--------|-----|----------------|-------|
| 3950 | 4-p | Phaeton | 2,845 |
| 3995 | 7-p | Phaeton | 2,895 |
| 4300 | 5-p | Town Brougham | 3,895 |
| 4310 | 5-p | Town Sedan | 3,495 |
| 4400 | 7-p | Sub. Sedan | 3,595 |
| 4525 | 7-p | Berline Lim. | 3,795 |
| 4100 | 4-p | Victoria Coupe | 3,245 |
| 4150 | 5-p | Sub. Coupe | 3,295 |

| PIERCE-ARROW "33" | | | |
|-------------------|-----|---------------|---------|
| 4350 | 2-p | Runabout | \$5,250 |
| 4500 | 4-p | Touring | 5,250 |
| 4590 | 7-p | Touring | 5,250 |
| 4780 | 3-p | Coupe | 6,800 |
| 4800 | 4-p | Sedan | 6,900 |
| 4960 | 7-p | Sedan | 7,000 |
| 4750 | 4-p | Coupe Sedan | 6,900 |
| 4730 | 6-p | Brougham | 6,800 |
| 4850 | 7-p | Limousine | 7,000 |
| 5060 | 7-p | Enclosed Lim. | 7,000 |
| 4780 | 7-p | French Lim. | 7,000 |
| 4730 | 6-p | Landulet | 7,000 |

| "80" | | | |
|------|-----|-----------------|-------|
| 3205 | 2-p | Roadster | 2,895 |
| 3260 | 4-p | Phaeton | 3,095 |
| 3385 | 7-p | Phaeton | 2,895 |
| 3430 | 5-p | Coach | 3,150 |
| 3365 | 4-p | Coupe Landau | 3,820 |
| 3335 | 4-p | Coupe | 3,695 |
| 3440 | 5-p | Sedan | 3,895 |
| 3560 | 7-p | Sedan | 3,995 |
| 3615 | 7-p | Enc. Drive Lim. | 4,045 |

| REO "T-6" | | | |
|-----------|-----|---------------|---------|
| 3350 | 2-p | Roadster | \$1,765 |
| 3182 | 5-p | Sp. Touring | 1,595 |
| 3350 | 2-p | Coupe | 1,645 |
| 3450 | 4-p | Coupe | 1,975 |
| 3400 | 5-p | Sedan 4 d. | 1,645 |
| 3545 | 5-p | Sedan 4d. | 2,085 |
| 3705 | 5-p | Brougham 4 d. | 2,235 |

| REVERE "25" | | | |
|-------------|-----|--------------|---------|
| 3900 | 2-p | Sp. Roadster | \$2,750 |
| 3975 | 4-p | Speedster | 2,750 |
| 4050 | 5-p | Touring | 2,750 |
| 4300 | 5-p | Sedan | 3,800 |

| "M" | | | |
|------|-----|-----------|-------|
| 3700 | 2-p | Roadster | 3,200 |
| 3800 | 4-p | Sportster | 3,200 |
| 3970 | 5-p | Touring | 3,200 |
| 4400 | 5-p | Sedan | 4,000 |

SHIP. WT. PASS. BODY STYLE. PRICE

RICKENBACKER

| "Six" (117 in. W. B.) | | | |
|-----------------------|-----|----------------|---------|
| ..... | 3-p | Roadster | \$1,595 |
| ..... | 5-p | Phaeton | 1,495 |
| ..... | 3-p | Coupe Roadster | 1,695 |
| ..... | 3-p | De Luxe | 1,820 |
| ..... | 4-p | Coupe De Luxe | 1,995 |
| ..... | 5-p | Spec. Sedan | 1,795 |
| ..... | 5-p | De Luxe | 1,920 |
| ..... | 7-p | Sedan De Luxe | 2,070 |
| ..... | 5-p | Coach Brougham | 1,595 |
| ..... | 5-p | De Luxe | 1,720 |

| "Eight" (121 1/2 in. W. B.) | | | |
|-----------------------------|-----|----------------|-------|
| ..... | 3-p | Roadster | 1,995 |
| ..... | 5-p | Phaeton | 1,995 |
| ..... | 3-p | Coupe Roadster | 2,095 |
| ..... | 3-p | De Luxe | 2,220 |
| ..... | 5-p | Spec. Sedan | 2,195 |
| ..... | 5-p | De Luxe | 2,320 |
| ..... | 7-p | Sedan De Luxe | 2,470 |
| ..... | 5-p | Coach Brougham | 1,995 |
| ..... | 5-p | De Luxe | 2,120 |

ROAMER

| "6-50-55" (115 in. W. B.) | | | |
|---------------------------|-----|--------------|---------|
| ..... | 2-p | Roadster | \$1,385 |
| ..... | 5-p | Spec. Tourer | 1,295 |
| ..... | 2-p | Bus. Coupe | 1,495 |
| ..... | 5-p | Coupe | 1,495 |
| ..... | 5-p | Sedan DeLuxe | 1,695 |

| "6-54-E" (118-138 in. W. B.) | | | |
|------------------------------|-----|-----------|-------|
| ..... | 4-p | Roadster | 2,385 |
| ..... | 4-p | Tourer | 1,985 |
| ..... | 4-p | Sport | 2,285 |
| ..... | 7-p | Tourer | 2,285 |
| ..... | 3-p | Cabriolet | 2,750 |

| "4-75-E" (128 in. W. B.) | | | |
|--------------------------|-----|-----------|-------|
| ..... | 2-p | Speedster | 3,485 |
| ..... | 3-p | Sport | 3,285 |
| ..... | 4-p | Tourer | 2,985 |

| "8-88" (138 in. W. B.) | | | |
|------------------------|-----|-----------------------|-------|
| ..... | 4-p | Roadster | 2,750 |
| ..... | 5-p | Sport | 2,750 |
| ..... | 5-p | Tourer | 2,495 |
| ..... | 7-p | Tourer | 2,585 |
| ..... | 2-p | Speedster | 2,985 |
| ..... | 3-p | Cabriolet | 2,950 |
| ..... | 5-p | Spec. Sedan | 3,785 |
| ..... | 7-p | Sedan (136-in. W. B.) | 3,285 |
| ..... | 5-p | Brougham | 2,895 |

| ROLLS-ROYCE | | | |
|-------------|---------|----|--|
| ..... | Chassis | †† | |

††Manufacturers do not quote list prices.

| STANLEY "252" | | | |
|---------------|-----|---------|---------|
| 3400 | 5-p | Phaeton | \$2,500 |
| 3800 | 5-p | Sedan | 3,300 |

| | | | |
|---|-----|---------|---------|
| ††Manufacturers do not quote list prices. | | | |
| STANLEY | | "252" | |
| 3400 | 5-p | Phaeton | \$2,500 |
| 3800 | 5-p | Sedan | 3,300 |
| STAR | | | |



Such Questioning Weakens a Salesman's Faith

"Is this car equipped with hydraulic brakes?"

"A friend of mine tells me that his mechanical four-wheel brake job was fine the first two or three weeks, but that after that his brakes required a lot of service and wouldn't stay equalized."

"I understand that hydraulic brakes don't develop squeaks and rattles and always remain perfectly equalized. I never could keep my two-wheel mechanical brakes equal, and four-wheel mechanical brakes surely will be more annoying in this respect."

These are the kind of statements being made, these are the kind of questions being asked, by the public. Just as constant dripping wears away the hardest stone, so the constant repetition of such questions weakens the strongest faith a salesman may have in a car.

If your car is equipped with mechanical four-wheel brakes, the public is unconsciously, by this process of attrition, weakening the faith of your salesmen in your car.

At first he boldly answers that such ideas are all wrong, and tries to show why.

Perhaps he believes what he is saying.

But public opinion is stronger than the salesman. Gradually his defense of the car becomes weaker.

Then he begins to ask himself:—"Wouldn't it be a lot easier for me if I were selling a car equipped with Lockheed brakes?"

You know his next step.

Why subject salesmen to this disadvantage when you can tie up with one of the many manufacturers whose cars are equipped with Lockheed Hydraulic Four-Wheel Brakes?

HYDRAULIC BRAKE COMPANY
5835 Russell Street Detroit, Michigan

The Answer
LOCKHEED HYDRAULIC
Four Wheel Brakes

Y—Yes
S—Semi-elliptic
Sep—Separate

P—Single plate
Pr—Pressure gun

J—Three-quarter elliptic
K—Cone

F—Full floating

B—Both internal and external, four wheels
Ch—Chain

Mechanical Specifications of Current Passenger Car Models—Continued

(This list comprises cars distributed on a national basis)

| MAKE AND MODEL | Wheel Base (Inches) | Tire Size | Decimals-Balloons | Make and Model | Number of Cyls. | Bore and Stroke | Rated H.P. | Piston Displacement | Valve Arrangement | Camshaft Drive | Crankcase Interlocking or Sep. | Piston Material | No. Main Bearings | Oiling System | Cooling System | Thermostat? | Carburetor | Air Cleaner? | ELECTRICAL SYSTEM | | | Clutch—Type and Make | Gear Set—Make | Universal—Type and Make | REAR AXLE | | BRAKES | | Steering Gear—Make | Rear Springs—Type and Length | Chassis Lubrication—Type and Make | ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS |
|-------------------------------|------------------------|-----------|--------------------------|--------------------------|-----------------|-----------------|------------|---------------------|-------------------|----------------|--------------------------------|-----------------|-------------------|---------------|----------------|-------------|------------|--------------|-------------------|----------------------------|---------------|----------------------|----------------|-------------------------|------------|------------------------|------------------------|--------------|--------------------|------------------------------|-----------------------------------|---|
| | | | | | | | | | | | | | | | | | | | Ignition System | Generator and Starter Make | Type and Make | | | | Gear Ratio | Foot—Type and Location | Hand—Type and Location | 4 Wheel Type |  |  |  |  | (* = Optional) |
| Locomobile..... Jr. 8 | 124 | 30x5.70 | Own.....8-21x4 | Own.....8-21x4 | 25.3 | 206 | I | Ch. | Int. | C.I. | 5 | P.F. | Pu. | N | Str..... | N | N | N | Delco. | P.Spi..... | Own..... | m-Spi..... | 1/2 Own..... | 4.77 | E-F | E-R | M | Ross. | Pr-Ze. | A-K—Atwater Kent | | |
| Locomobile..... 48 | 142 | 35x6.75 | Own.....6-41x5 1/2 | Own.....6-41x5 1/2 | 48.6 | 525 | L | He. | Int. | C.I. | 7 | P.F. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Spi..... | 1/2 Own..... | 5.11 | E-F | E-R | M | Ross. | Pr-Ze. | A-L—Auto-Lite | | |
| Marmon..... 74 | 136 | 32x6.20 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 33.8 | 340 | I | He. | Int. | C.I. | 3 | P.F. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Spi..... | 1/2 Own..... | 4.10 | E-R | E-R | M | Ross. | Pr-Al. | Al—Alumina | | |
| McFarlan..... SV | 127 | 32x6.20 | Own.....6-33x5 | Own.....6-33x5 | 27.3 | 208 | L | Ch. | Int. | C.I. | 3 | P.F. | Pu. | N | Str..... | N | N | N | Wes. | D.Own. | W-G. | W-G. | m-Uni..... | 4.90 | E-F | E-T | H | Ross. | OW..... | B&B—Borg & Beck | | |
| Mercedes..... TV | 120 | 32x6.20 | Own.....6-33x5 | Own.....6-33x5 | 27.3 | 208 | L | Ch. | Int. | C.I. | 3 | P.F. | Pu. | N | Str..... | N | N | N | Wes. | D.Own. | W-G. | W-G. | m-Uni..... | 4.90 | E-F | E-T | H | Ross. | OW..... | B-L—Brown-Lipe | | |
| Mercer..... 6-117-132 | 127 | 32x6.20 | Own.....6-33x5 | Own.....6-33x5 | 27.3 | 208 | L | Ch. | Int. | C.I. | 3 | P.F. | Pu. | N | Str..... | N | N | N | Wes. | D.Own. | W-G. | W-G. | m-Uni..... | 4.90 | E-F | E-T | H | Ross. | OW..... | B-L—Brown-Lipe | | |
| Moon..... Newport | 118 | 31x5.25 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 33.8 | 331 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Moon..... Metropolitan | 118 | 31x5.25 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 25.4 | 224 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Moon..... London | 118 | 31x5.25 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 25.4 | 224 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Moon..... Series A | 113 | 30x5.25 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 25.4 | 224 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Moon..... Advanced | 113 | 30x5.25 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 25.4 | 224 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Nash..... 121-127 | 113 | 30x5.25 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 25.4 | 224 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Nash..... Special | 113 1/2 | 30x5.25 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 25.4 | 224 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Oldsmobile..... 30 | 110 1/2 | 30x3.95 | Own.....6-33x5 1/2 | Own.....6-33x5 1/2 | 19.8 | 185 | L | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Oldsmobile..... 91 | 100 | 30x3.95 | Own.....6-33x5 1/2 | Own.....6-33x5 1/2 | 19.8 | 185 | L | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Overland..... 93 | 112 1/2 | 29x4.95 | Own.....6-33x5 1/2 | Own.....6-33x5 1/2 | 19.8 | 185 | L | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Overland..... 93 | 112 1/2 | 29x4.95 | Own.....6-33x5 1/2 | Own.....6-33x5 1/2 | 19.8 | 185 | L | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | W-G. | W-G. | m-Spi..... | 4.08 | E-F | E-T | H | Ross. | Pr-Own. | Bas—Bassett cups | | |
| Packard..... 6 | 126-133 | 33x5.77 | Own.....6-33x5 1/2 | Own.....6-33x5 1/2 | 29.4 | 289 | L | Ch. | Int. | C.I. | 7 | P.F. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Mec..... | 1/2 Own..... | 4.66 | E-F | E-R | M | Ross. | Pr-Bij. | Col—Columbia | | |
| Packard..... 8 | 136-143 | 33x6.75 | Own.....8-33x5 1/2 | Own.....8-33x5 1/2 | 36.4 | 338 | L | Ch. | Int. | C.I. | 9 | P.F. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Mec..... | 1/2 Own..... | 4.66 | E-F | E-R | M | Ross. | Pr-Bij. | Col—Columbia | | |
| Paige..... 21-25 | 131 | 33x6.75 | Own.....10A-6-33x5 1/2 | Own.....10A-6-33x5 1/2 | 33.8 | 331 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | W-G. | W-G. | m-Mec..... | 4.90 | E-F | E-T | M | Ross. | Pr-Al. | De—Detroit | | |
| Peerless..... 6-72 | 126-133 | 33x6.75 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 29.4 | 289 | L | Ch. | Int. | C.I. | 7 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Spi..... | 3/4 Tim..... | 4.90 | E-F | E-R | H | Ross. | Pr-Al. | Due—Duesenberg | | |
| Peerless..... 67 | 128 | 33x6.75 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 29.4 | 289 | L | Ch. | Int. | C.I. | 7 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Spi..... | 3/4 Tim..... | 4.90 | E-F | E-R | H | Ross. | Pr-Al. | Due—Duesenberg | | |
| Pierce Arrow..... 33 | 138 | 33x6.75 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 33.8 | 332 | L | Ch. | Int. | C.I. | 7 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Spi..... | 3/4 Tim..... | 4.90 | E-F | E-R | H | Ross. | Pr-Al. | Due—Duesenberg | | |
| Pierce Arrow..... 30 | 130 | 33x6.75 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 33.8 | 332 | L | Ch. | Int. | C.I. | 7 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Spi..... | 3/4 Tim..... | 4.90 | E-F | E-R | H | Ross. | Pr-Al. | Due—Duesenberg | | |
| Pierce Arrow..... 86 | 120 | 32x6.20 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 24.3 | 239 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Spi..... | 3/4 Tim..... | 4.45 | E-R | E-R | M | Ross. | Pr-Ze. | Eat—Eaton | | |
| Reo..... 76 | 130 | 32x6.20 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 24.3 | 239 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | D.Own. | Own..... | m-Spi..... | 3/4 Tim..... | 4.45 | E-R | E-R | M | Ross. | Pr-Ze. | Eat—Eaton | | |
| Revere..... M | 131 | 32x4 1/2 | Mon.....M-4-43x6 | Mon.....M-4-43x6 | 30.6 | 361 | H | Ch. | Int. | Al. | 2 | P.C. | Pu. | N | Str..... | N | N | N | Bosch. | D.B-L. | B-L. | f-Own. | 1 1/2 Spe..... | 3.44 | E-R | E-R | M | Ross. | Pr-Al. | Gem—Gummer | | |
| Revere..... 25 | 131 | 32x4 1/2 | Mon.....M-4-43x6 | Mon.....M-4-43x6 | 30.6 | 361 | H | Ch. | Int. | Al. | 2 | P.C. | Pu. | N | Str..... | N | N | N | Bosch. | D.B-L. | B-L. | f-Own. | 1 1/2 Spe..... | 3.44 | E-R | E-R | M | Ross. | Pr-Al. | Gem—Gummer | | |
| Rickenbacker..... D | 117 | 31x5.25 | Own.....D-6-33x5 1/2 | Own.....D-6-33x5 1/2 | 25.3 | 236 | L | Ch. | Int. | C.I. | 7 | P.C. | Pu. | N | Str..... | N | N | N | Bosch. | D.B-L. | B-L. | f-Own. | 1 1/2 Spe..... | 3.44 | E-R | E-R | M | Ross. | Pr-Al. | Hoo—Hoosier | | |
| Rickenbacker..... B-8 | 121 1/2 | 31x5.25 | Own.....B-8-33x5 1/2 | Own.....B-8-33x5 1/2 | 33.8 | 315 | L | Ch. | Int. | C.I. | 7 | P.C. | Pu. | N | Str..... | N | N | N | Bosch. | D.B-L. | B-L. | f-Own. | 1 1/2 Spe..... | 3.44 | E-R | E-R | M | Ross. | Pr-Al. | Jac—Jacobs | | |
| Roamer..... 6-54-E | 118-128 | 32x4 1/2 | Con.....12XD-6-33x5 1/2 | Con.....12XD-6-33x5 1/2 | 29.4 | 303 | L | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | Long. | m-Mec..... | 3/4 Tim..... | 4.70 | E-F | E-R | M | Ross. | Pr-Al. | Joh—Johnson | | |
| Roamer..... 4-75-E | 115 | 31x5.25 | Due.....G-1-4-4x6 | Due.....G-1-4-4x6 | 28.9 | 340 | L | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | Long. | m-Mec..... | 3/4 Tim..... | 4.70 | E-F | E-R | M | Ross. | Pr-Al. | Joh—Johnson | | |
| Roamer..... 6-50-55 | 115 | 31x5.25 | Own.....G-1-4-4x6 | Own.....G-1-4-4x6 | 28.9 | 340 | L | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | Long. | m-Mec..... | 3/4 Tim..... | 4.70 | E-F | E-R | M | Ross. | Pr-Al. | Joh—Johnson | | |
| Roamer..... 8-88 | 138 | 32x6.20 | Own.....7-46x5 1/2 | Own.....7-46x5 1/2 | 25.4 | 224 | L | Ch. | Int. | C.I. | 4 | P.C. | Pu. | N | Str..... | N | N | N | Delco. | P.B&B. | Long. | m-Mec..... | 3/4 Tim..... | 4.70 | E-F | E-R | M | Ross. | Pr-Al. | Joh—Johnson | | |
| Rolls Royce..... Silver Ghost | 143 1/2 | 33x5 1/2 | Own.....6-41x5 1/2 | Own.....6-41x5 1/2 | 48.6 | 463 | L | Ch. | Int. | C.I. | 7 | P.F. | Pu. | N | Str..... | N | N | N | Bosch. | D.B-L. | B-L. | f-Own. | 1 1/2 Spe..... | 3.44 | E-R | E-R | M | Ross. | Pr-Al. | L—Leece-Neville | | |
| Rolls Royce..... Phantom | 143 1/2 | 33x5 1/2 | Own.....6-41x5 1/2 | Own.....6-41x5 1/2 | 48.6 | 463 | L | Ch. | Int. | C.I. | 7 | P.F. | Pu. | N | Str..... | N | N | N | Bosch. | D.B-L. | B-L. | f-Own. | 1 1/2 Spe..... | 3.44 | E-R | E-R | M | Ross. | Pr-Al. | L—Leece-Neville | | |
| Stanley..... 252 | 122 | 32x6.20 | Own.....252-4-4x6 | Own.....252-4-4x6 | 20.0 | 126 | I | Ch. | Int. | C.I. | 2 | P.C. | Pu. | N | Str..... | N | N | N | Wat. Own. | P.Own. | None. | m-Own. | 1 1/2 Tim..... | 3.72 | E-R | E-R | M | Ross. | Pr-Al. | LYE—Lycoming | | |
| Star..... 4 | 102 | 30x3 1/2 | Own.....Spec. 4-39x4 1/2 | Own.....Spec. 4-39x4 1/2 | 18.2 | 161 | L | Ch. | Int. | C.I. | 2 | P.C. | Pu. | N | Str..... | N | N | N | None. | P.Own. | None. | m-Own. | 1 1/2 Tim..... | 3.72 | E-R | E-R | M | Ross. | Pr-Al. | LYE—Lycoming | | |
| Stearns Knight..... B | 119 | 33x4 1/2 | Own.....Kni-6-33x5 1/2 | Own.....Kni-6-33x5 1/2 | 22.5 | 249 | X | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | A-L. | P.Own. | None. | m-Own. | 1 1/2 Tim..... | 3.72 | E-R | E-R | M | Ross. | Pr-Al. | LYE—Lycoming | | |
| Stearns Knight..... C | 121 | 33x6.00 | Own.....Kni-6-33x5 1/2 | Own.....Kni-6-33x5 1/2 | 22.5 | 249 | X | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | A-L. | P.Own. | None. | m-Own. | 1 1/2 Tim..... | 3.72 | E-R | E-R | M | Ross. | Pr-Al. | LYE—Lycoming | | |
| Stearns Knight..... S | 130 | 33x6.00 | Own.....Kni-6-33x5 1/2 | Own.....Kni-6-33x5 1/2 | 22.5 | 249 | X | Ch. | Int. | C.I. | 3 | P.C. | Pu. | N | Str..... | N | N | N | A-L. | P.Own. | None. | m-Own. | 1 1/2 Tim..... | 3.72 | E-R | E-R | M | Ross. | Pr-Al. | LYE—Lycoming | | |
| Stevens Duryea..... G | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



If Demonstration Determines Your Choice You Must Choose This New Cadillac

No one can experience the tingle and thrill of a ride in this new Cadillac and ever again think of a motor car merely as a means of transportation.

For purposes of transportation almost any good four, six, or eight will answer—but here is a poetry of motion which transforms the journey into an interlude of joyous living.

The new Cadillac will carry you to your destination, be it far or near, with the time-table certainty of a train de luxe.

But better far than that, it transmutes dull time into golden moments and hours of elation and enjoyment—as no Cadillac and no other car before has ever done.

The new Cadillac is for those who know that the secret of life is in *living*—who realize that the time spent in

riding and driving is so large a portion of their existence that it is important and even imperative that it should contribute largely to their physical and mental well being.

The new Cadillac is the very embodiment of the invigorating, zestful atmosphere of America—a buoyant, beautiful creation which gives lilt and uplift to mind and spirit every mile it travels.

Here is a Cadillac which smoothes away the hard, set, worried lines from the face of the average motorist—which invites him to give his inner self free play, and, as he rides or drives, get the uttermost out of the day and the way.

Go to your Cadillac distributor and find how much more than a mere mode of transportation a motor car can be.

Lawrence P. Fisher, President

C A D I L L A C



DIVISION OF
GENERAL MOTORS
CORPORATION

Pu—Pump
Q—Quarter elliptic
R—Rectifier
S—Separate
T—Tires
V—Valve
W—Wax
X—Sleeve valve
Y—Yes
Z—Zephyr
A1—Aluminum
B—Both internal and
C—Chain
E—R—External rear wheels
E—R—External transmission
F—Filter
F1—Full floating
I—Integral four wheels
I—R—Internal rear wheels
J—Three-quarter elliptic
K—One
O—Oil cups
P—Pressure gun
P—Single plate
Q—Oil cups with wick feed
R—Rectifier
S—Separate
T—Tires
V—Valve
W—Wax
X—Sleeve valve
Y—Yes
Z—Zephyr

MAC H

MULTI

BRAKE

INES!

At a price within the reach of every garage and service station Multibestos offers a motor driven Brake Relining Machine that—

1. Punches the old rivets out of lining and band;
2. In one operation drills and counter-sinks the new lining;
3. Heads the new rivets over.

Write for profitable information in regard to the Multibestos 1925 Service Station Franchise.

MULTIBESTOS COMPANY, Walpole, Mass., U. S. A.

Branches: NEW YORK CHICAGO DETROIT NASHVILLE

THE MULTIBESTOS LINE

Multibestos Brake Lining

Multibestos TAXITRUX Brake Lining

Multibestos 229 Transmission Lining for Ford Cars

Multibestos SPECIAL Transmission Lining for Ford Cars

Multibestos NO-WIRE Transmission Lining for Ford Cars

Multibestos FIBRE Transmission Lining for Ford Trucks

Multibestos Lined Brake Shoes for Ford Cars

Multibestos Clutch Linings

BESTOS

LINING

McQUAY-NORRIS BEARINGS

For bearings which are cast in the rod in original equipment there are insert bearings in the McQuay - Norris line which can be easily fitted and will give perfect service.



McQuay-Norris *pure* Tin Base Motor Bearings, in the bronze-back type, are spun by a special centrifugal process. It eliminates gas holes and gives a very dense babbitt lining.

The bronze shell and babbitt liner are bonded together perfectly. Every McQuay-Norris bearing is individually tested to insure this.

They are easy to fit because the bearing face is machine finished to close limits and requires little scraping.

The McQuay-Norris bearing line includes special under-size bearings for ground shafts.

Only the finest materials and the highest standard of workmanship go into all McQuay-Norris products—piston rings, pistons, pins and bearings.

Remember

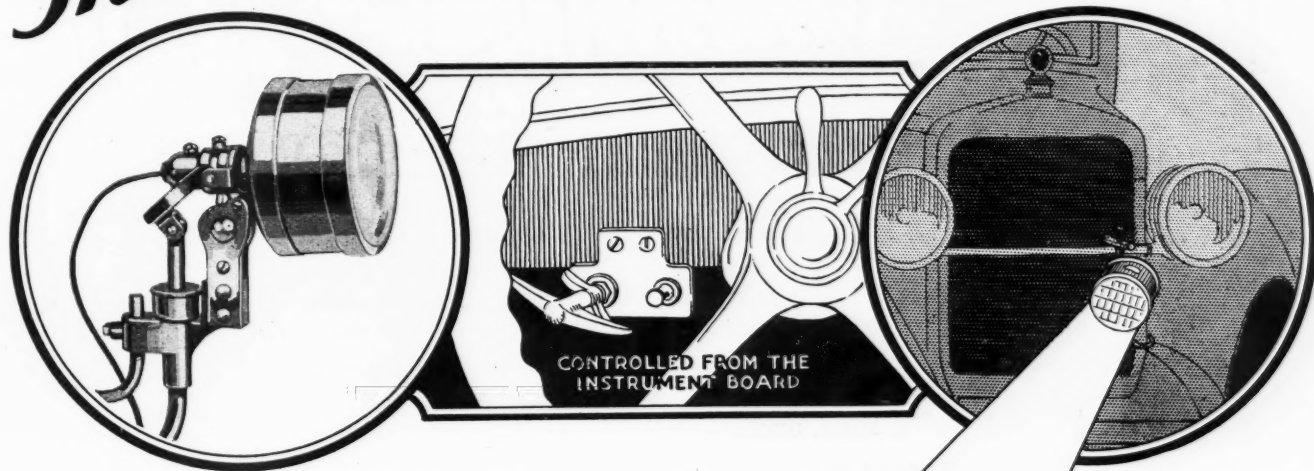
The best profits are in the best parts. Poor replacement parts can ruin a good mechanical job.

The Complete McQUAY-NORRIS parts line PISTON RINGS - PISTONS - PINS - BEARINGS

McQUAY-NORRIS MANUFACTURING COMPANY. General Offices: ST. LOUIS, U. S. A.

Factories: St. Louis, Indianapolis, Connersville, Ind.; Toronto, Canada

The Walden Fore-Lite



Safe to Use

The safety of the WALDEN Fore-Lite is its outstanding selling point, together with its simplicity of operation and its attractive appearance on the front of any car.

It protects drivers at night against the blinding glare of approaching brights, or clearly marks the road for them when using dims. The WALDEN Fore-Lite does not glare.



Profitable to Sell

There is a universal demand for a driving light like the WALDEN Fore-Lite. Controlled from the instrument board, it is as easily directed as any spot-light, with the extra advantage of being set below the line of vision, where it cannot throw a hazy path, or cause reflections from polished surfaces.

Dealers and wholesalers handling WALDEN Fore-Lite make liberal profits from rapid sales. It provides the system of lighting which drivers have tried to effect by fastening spot-lights to various parts of the front of their cars—plus scientific light direction from the driver's seat.

SEND FOR LITERATURE AND DETAILS. There is money for you in the WALDEN Fore-Lite.

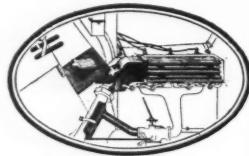
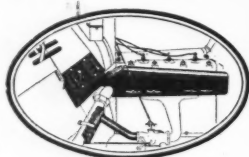
The Walden Company

1114 S. Michigan Ave.

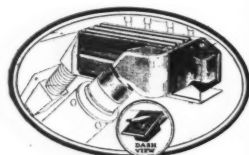
Chicago

They are Hot

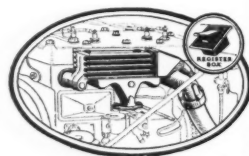
You know what I mean



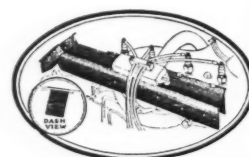
2 FORD Models
Sheet Iron \$1.75
Cast Iron \$6.00



CHEVROLET
\$6.00



STAR
\$9.50



OVERLAND
\$3.00

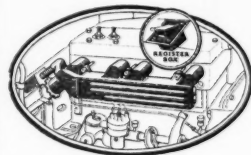
HOT for your customers next winter. Hot soon as it turns cold weather for quick profits for you. Two outstanding features—They throw **MORE HEAT** and they **COST LESS**. Also a good, long profit for you. That is why Red Cat Heater sales doubled last year. That is why we expect them to double again this year. Follow the leader, men, and

WRITE—Get Full Particulars

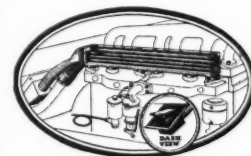
Eight models. Too many to fully describe here. Write, or ask a jobber salesman, for details. We want you to look the line over at close range. The best profit line of heaters made—and winter profits are what you want.



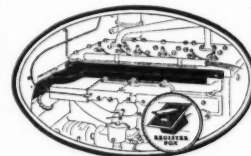
Made at
Hastings, Neb.
by the
G. A. Roth Mfg. Co.



DODGE
\$9.00



ESSEX
\$9.50



HUDSON
\$8.00



Red Cat Heaters



What AC Means to the Dealer

AC Spark Plugs



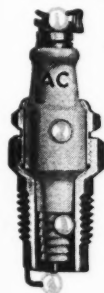
More than 80% of all the cars produced in this country, Fords excluded, are factory equipped with AC Spark Plugs. Among these cars are:

Apperson
Buick
Cadillac
Case
Chandler
Chevrolet
Chrysler
Cleveland
Davis

Dodge
Brothers
Durant
Essex
Flint
Hudson
Hupmobile
Kissel
Marmon

Maxwell
Nash
Oakland
Oldsmobile
Paige
Star
Vellie
Westcott
Wills Salate
Claire

AC 1075 for Fords



One glance tells the whole story — Why the AC 1075 is an especially good plug for Fords—Here are its features:

- 1 Spring Terminal Clip
- 2 Heavy Body Porcelain
- 3 High Temperature Fins—Patented Carbon-proof Porcelain
- 4 Heavy Electrode Forms Natural Oil Drain.

Dealers who carry a good stock of AC products can build a profitable business. The demand is assured because of their use as car equipment.

* * *

Backed by strong advertising.

* * *

They afford you the margin of profit you should get.

AC Spark Plug Company, FLINT, Michigan

Makers of AC Spark Plugs—AC Speedometers—AC Air Cleaners

AC-SPHINX
Birmingham
ENGLAND

AC-OLEO
Levallois-Perre
FRANCE

AC Speedometers



The Model for Fords

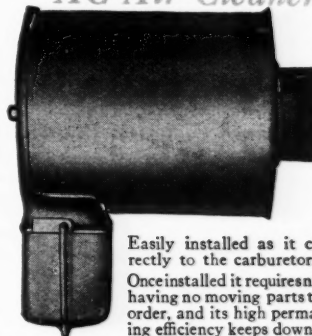
Miles per hour, miles per trip, total mileage—it tells them all.

Simple direct drive is a big improvement over previous types of drives as it does away with the swivel joint.

Complete with all attachments and once installed is a source of constant satisfaction. The cost is surprisingly low—\$15. (\$21.00 in Canada.)

That AC Speedometers can be depended upon for trouble-free operation, is evidenced by the fact that they are original equipment on such cars as Buick, Cadillac, Chevrolet, Chrysler, Gray, Maxwell, Oakland, Oldsmobile and GMC Trucks.

AC Air Cleaners



Easily installed as it connects directly to the carburetor.

Once installed it requires no attention, having no moving parts to get out of order, and its high permanent cleaning efficiency keeps down repair bills.

Comes complete with all attachments and is reasonably priced—\$5.00 to \$7.00 (\$7.00 to \$10.00 in Canada) depending on the size required.



To show the 5-Minute Vulcanizer is to sell it. This Self-Merchandiser, holding a dozen vulcanizers, demonstrates the 5-Minute Vulcanizer, its simple method of operation, and a real repair that your customers can examine. Dealers tell us it's a fast worker and makes quick sales.

This
Display Cabinet
Sells 'Em
Mail the Coupon
and find out
how to get it
FREE

Smashing All Previous Sales Records

Already, with only half of 1925 gone, it looks as though this year will be another record breaker in Shaler Vulcanizer sales. Think of the repeat business this means on Shaler Patch-&-Heat Units, which to date are showing a much bigger gain—more than 30%—over last year.

It is almost certain that you will get the repeat business from the motorists to whom you make the original sales. The pirate specialty man cannot get the repeat business because the Shaler Vulcanizer and Shaler Patch-&-Heat Units are never sold by 10c stores, county fair peddlers, etc.

In addition, our big national advertising in magazines like The Saturday Evening Post is being read by your customers. Many of them are ready to buy the first Shaler Vulcanizer they see in some dealer's window. They will not send their orders to us because all of our ads say "Buy from your dealer." Nor are they likely to come in and embarrass you by asking for the Shaler if they do not see it in your stock.

Will it be in your window where they see the vulcanizer they want? Will you make the sale and start the repeat business coming your way?

C. A. SHALER CO., Waupun, Wis., U. S. A.

Branch Factories: Beeston, England, and Montreal, Canada



C. A. SHALER CO.

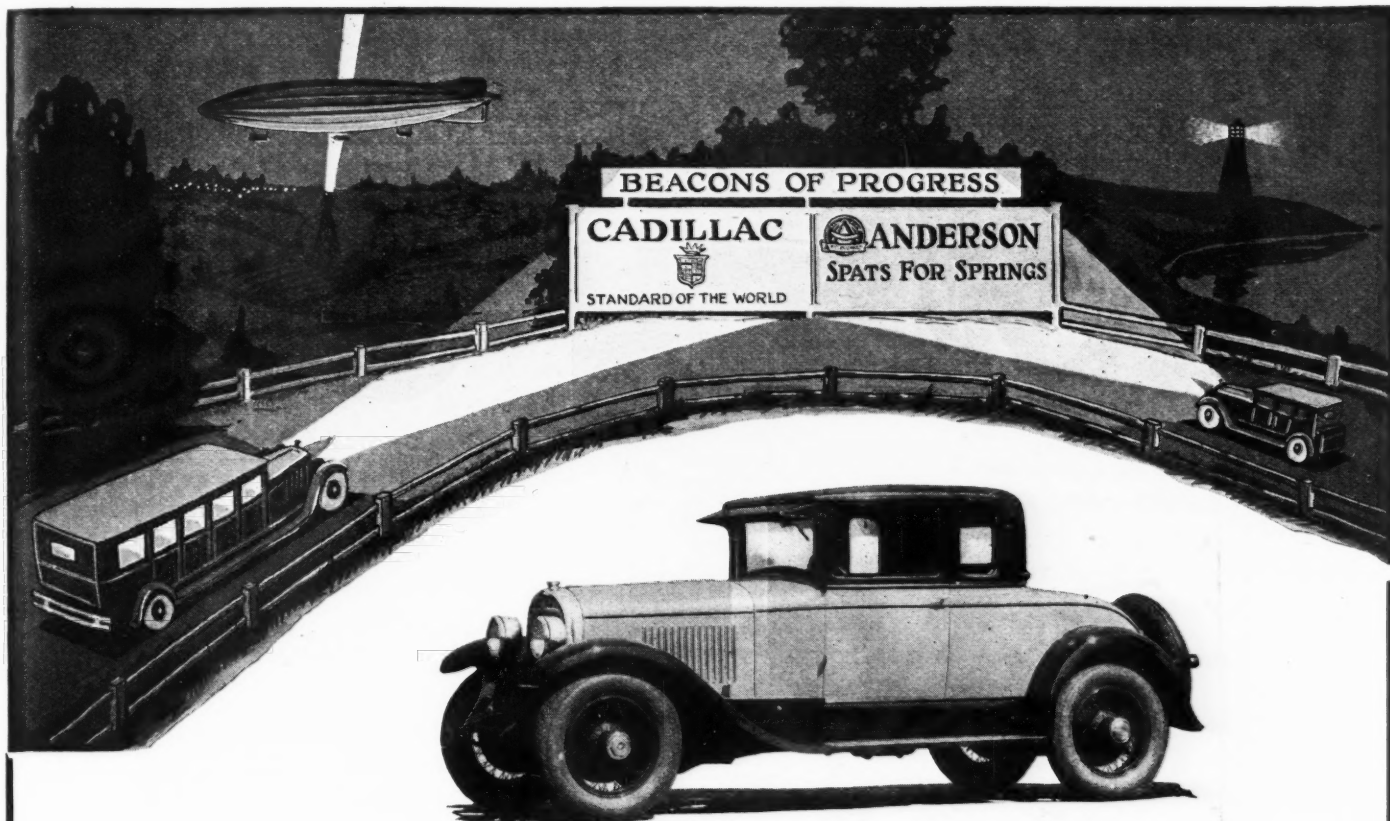
212 Fourth Street, Waupun, Wis.

Gentlemen: Please tell me how to get the Shaler Self-Merchandiser FREE. Also send me Window Display Material, Advertising Matter and Circulars to mail out.

Name.....

City.....

State.....



The New Cadillac

TRULY A SUPERLATIVE AUTOMOBILE. A NOTEWORTHY EXAMPLE OF MECHANICAL EXCELLENCE, PLEASING AND REFINED BODY DESIGN, AND COMPLETENESS OF EQUIPMENT.

Its custom chassis have Anderson Spring Covers as regular equipment. Standard chassis have them as optional equipment.

THAT AN ACKNOWLEDGED LEADER HAS ADOPTED SPRING COVERS AS REGULAR EQUIPMENT IS AMPLE INDICATION THAT SPRING COVERS ARE A NECESSITY.

IT IS PROOF THAT SPRINGS SHOULD BE GIVEN POSITIVE AND PERMANENT PROTECTION. IT IS CONCLUSIVE EVIDENCE THAT THE MAINTENANCE OF SPRINGS IN NEW CAR CONDITION IS ESSENTIAL FOR COMPLETE CAR COMFORT, AND THAT THIS RESULT CAN ONLY BE OBTAINED BY EFFECTIVE AND DURABLE FOOL-PROOF CASINGS RATHER THAN BY SPASMODIC AND MAKESHIFT METHODS OF SPRING LUBRICATION.

It is apparent that if Anderson SPATS FOR SPRINGS are worthy of such consideration they must possess marked advantages in design, material and operation.

Anderson Spats for Springs

Anderson Spats for Springs guarantee continuously efficient spring service.

Made of the finest quality materials, they fit any and all types of springs perfectly, and are reasonable in price.

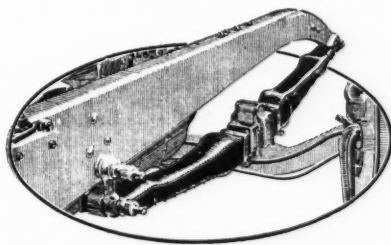
The discriminating car buyer is anxious to obtain accessories that are necessary for his comfort and safety, and the preservation of his automobile. There is none more vitally important than a set of Anderson SPATS FOR SPRINGS.

Anderson Spats for Springs are profit builders and a definite assurance of owner satisfaction.

WE CAN SHOW THE DEALER UP-TO-DATE MERCHANDISING METHODS THAT WILL ENABLE HIM TO SELL OUR COVERS SUCCESSFULLY.

Anderson Manufacturing Co.

1928 Revere Beach Parkway
Everett, Mass.



It Always Pays to Buy Quality



Stewart-Warner Miniature Spotlight
Prices range from \$9.00 to \$12.50



Stewart-Warner Shock Absorbers
Per Pair - \$15.00
West of 100° Meridian \$15.50
Special Model for Fords \$11.50
West of 100° Meridian \$12.00



**Stewart-Warner Speedometer
Special Model for Fords**
Colored dials tell when to lubricate
Complete \$15.00
West of 100° Meridian \$15.50



Stewart-Warner Electric Windshield Cleaner
Complete - \$8.50
West of 100° Meridian \$8.75



**Stewart-Warner Spotlight
For Open or Closed Cars**
\$4.25



Stewart-Warner Electric Motor Horn
\$5.00
West of 100° Meridian \$5.25



Stewart-Warner Car Heaters
Small Model \$18.00 Large Model \$22.00
West of 100° Meridian \$19.50 and \$23.50



Stewart-Warner Rear Vision Mirror
For Open or Closed Cars \$2.00



Stewart-Warner Fender Guards
Prices range from \$18.00 to \$25.00
Slight increase in Western Prices



Stewart-Warner Double and Triple Bar Bumpers
Black Enameled or Nickel Plated Bars
Prices range from \$12.50 to \$37.50
Slight increase in Western Prices

The Stewart-Warner
FAMILY
One Quality - One Name - One Service

More Money is Being Spent on Accessories Push Them to the Front—

THIS is an accessory year. You see more bright new Bumpers, Spotlights and Electric Windshield Cleaners than ever before. Folks are also educated to the need for Shock Absorbers.

Accessory sales in 1922 were \$170,500,000. In 1923 \$210,400,000. In 1924 \$235,100,000. The general indications for 1925 point to 300 million dollars to be spent on accessories.

Who is selling these? Are you? Do you consider your accessory counter merely an ornament? If so, you are missing a big bet.

Do you know why the gyp lives and prospers? It's because you create a customer for him every time you let a car go out without accessories.

Are you in the business of creating customers for the other fellow? Are you content with only a slice of the business and hand the rest of the loaf to the others?

One source of supply—Stewart-Warner—will

fully equip an accessory department for you with the the ten major accessories.

No loading up with stock—merely a display line and a few of each item—then depend on the Stewart-Warner Products Service Station near you for repeat stock. Small investment for you but so many turn-overs that the volume mounts up and the profit is great in proportion to the investment.

Accessories also lead to car customers. It works both ways.

Everybody knows the Stewart-Warner Family of accessories. No other make enjoys so many millions of pleased users.

Send for the Stewart-Warner Service Station Salesman, and talk it over with him.

"Minute-man" Service for the Dealer—

One place to look for new stock—on Ten Products—the Stewart-Warner Service Station near you. These Service Stations are centrally located in 62 cities across the nation—each within a few hours delivery time of the extreme limits of its territory. No need to stock up heavily—just reach into the Stewart-Warner Service Station for duplicate stock as you need it.

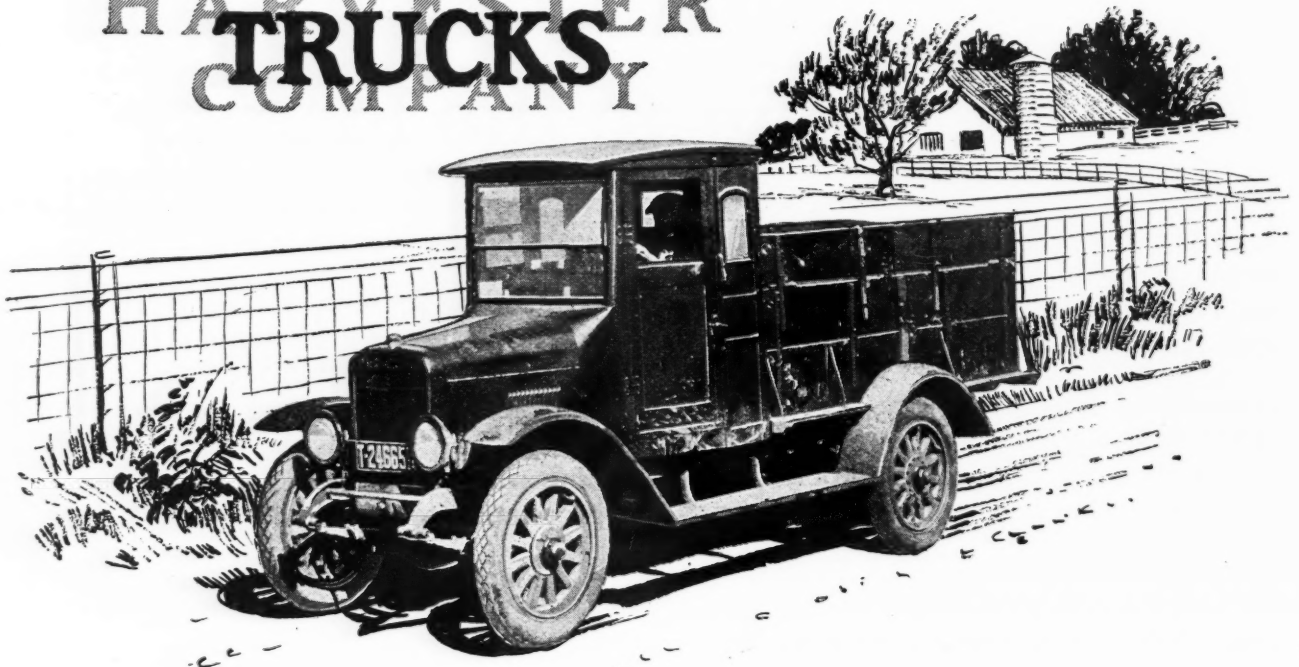
STEWART-WARNER
SPEEDOMETER CORP.
CHICAGO - U. S. A.

Dealer's Service Bureau

No matter where you are located, no matter what business problem is bothering you—turnover, stock, display, buying, merchandising, advertising—write to the Stewart-Warner Dealer Service Bureau, 1826 Diversey Blvd., Chicago, Illinois, or take it up with the Stewart-Warner Service Station near you.

Stewart-Warner Accessories

INTERNATIONAL HARVESTER TRUCKS COMPANY



"Sturdy with heaped-up vigor"
~ just as essential of his truck as of himself

BORN and bred a son of struggle, the farmer appraises his mechanical servants by the same standards that qualify him for success.

Among those modern developments that serve him best, the truck stands out with increasing prominence.

Increasing, because it has grown constantly more dependable, more capable of meeting the most difficult transportation task in this country.

This constant improvement has received a measurable impetus from the thorough acquaintance with farming conditions and the sound, well-balanced engineering knowledge of the International Harvester Company of America.

For five years Lycoming Four-Cylinder Engines have been the International Harvester Company's choice of power plant for their speed trucks and motor busses.

LYCOMING MANUFACTURING COMPANY

Makers of Fine Fours, Sixes and Eights-in-Line
WILLIAMSPORT, PENNSYLVANIA

LYCOMING

Motors

Years Ahead in Automobile Motor Efficiency

FISK TRANSPORTATION "Fillerless" CORDS



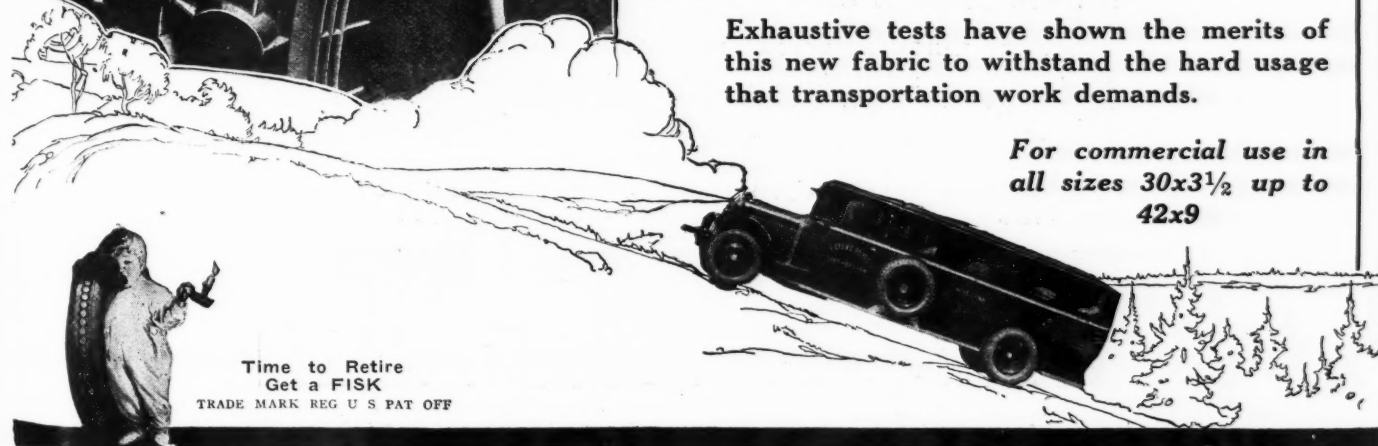
A New Transportation Tire

Fisk Transportation Cords are now made with a new specially constructed fabric manufactured by The Fisk Rubber Company under their own patented process.

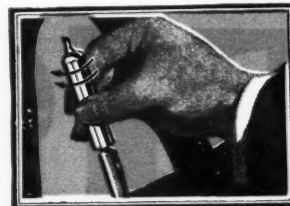
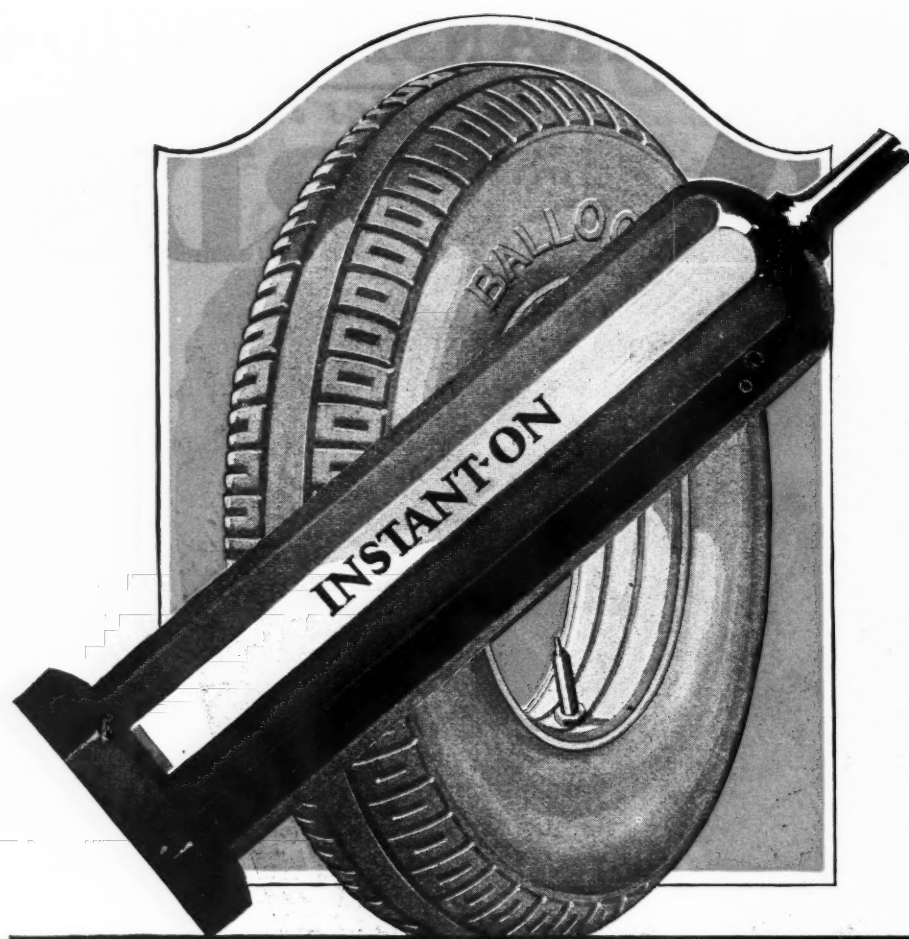
This new method of construction eliminates cross threads, controls the spacing and tension of the cords and uniformly surrounds the cords with rubber. This is called *'Fillerless'* fabric.

Exhaustive tests have shown the merits of this new fabric to withstand the hard usage that transportation work demands.

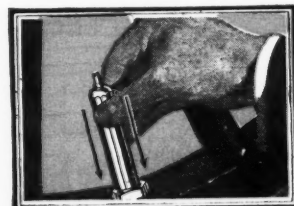
For commercial use in
all sizes 30x3½ up to
42x9



Time to Retire
Get a FISK
TRADE MARK REG U S PAT OFF



1 Just catch the cap on the valve stem with one or two turns—



2 then push down as far as the cap will go—the valve cap slides inside the dust cap to fit any length stem—



3 another turn or two to tighten and it's done. It comes off just as easy—just reverse the operation.

A convenience on every tire— a necessity on balloons

INSTANT-ONS—combination dust and valve caps—are such time and trouble savers every motorist wants them.

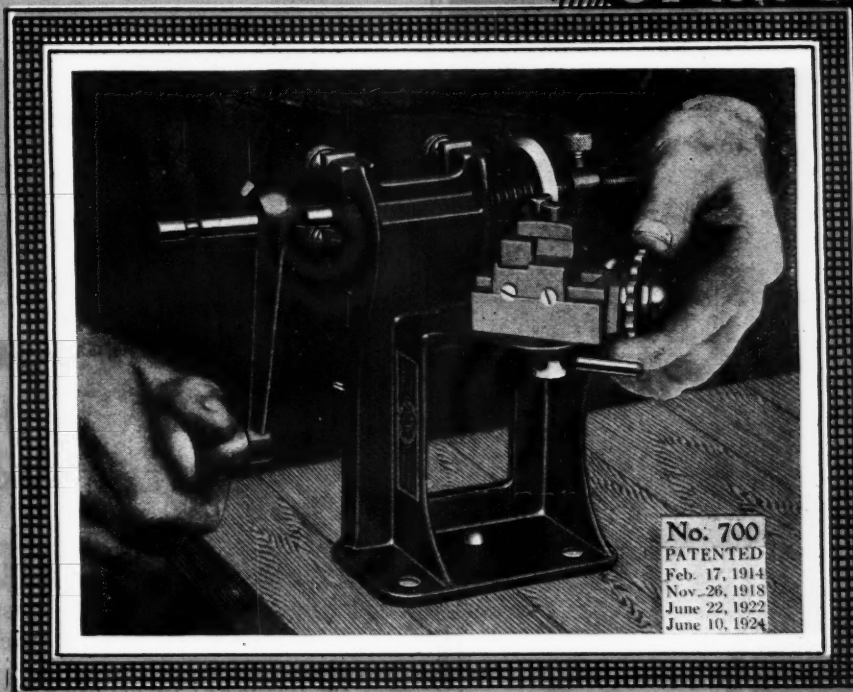
Plus their convenience Instant-Ons have another important advantage. The specially constructed valve cap is positive protection against leaks—a real necessity on balloon and low pressure tires.

Most car manufacturers specify and provide Instant-Ons as standard equipment. There is a constantly growing demand from car owners. Retail price—5 in a box, \$1.00. Your jobber can supply you.

THE DILL MANUFACTURING COMPANY • Cleveland, Ohio
Manufactured in Canada by The Dill Manufacturing Company, of Canada, Ltd., Toronto

DILL

Standard Tire Valves and Valve Parts



No. 700
PATENTED
Feb. 17, 1914
Nov. 26, 1918
June 22, 1922
June 10, 1924

LITTLE SIOUX VALVE LATHE

THE slickest little tool you ever saw for refacing valves.

A few turns will give a clean smooth face that requires very little grinding in to make it seat perfectly. With pitted, carbon coated or warped valves this is the only way to be sure of a perfect job.

Any valve up to 2½ inches—30, 45 or 60 degree angle—is refaced quickly and accurately by this handy little tool. It cuts the hardest steel valves—including *tungsten steel*. Its circular cutter leaves no ridges, and cannot get out of cutting line with the valve. It stays sharp a long time. The center adjustment has a positive stop. When set for a certain size valve it will always be perfectly centered for the same size valve. Two clamp Devices hold valve stem in perfect alignment.

**Your Jobber
Sells It**

ALBERTSON & CO.
SIOUX CITY, IOWA

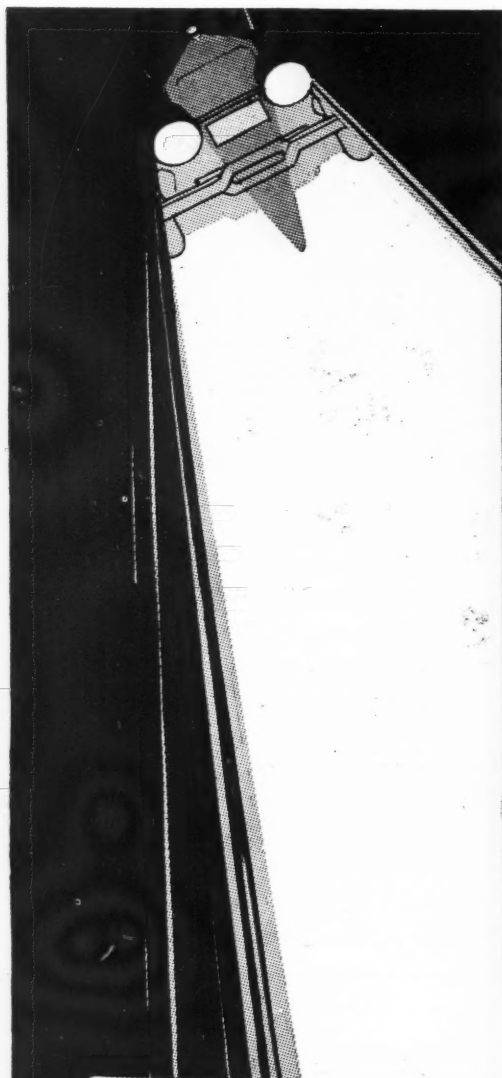
SIOUX

Trade

Mark Reg.

U.S. Patent

Office



From every merchandising viewpoint flatlite is a perfect accessory—

POINT 1 Every car owner needs the kind of light that flatlites give. This means the widest possible market that any accessory can enjoy.

POINT 2 The two ways in which flatlites are sold take care of every car owner's requirements. If his present headlamps are good—you sell him flatlite reflectors. If he needs new headlamps—you sell him flatlite headlamps.

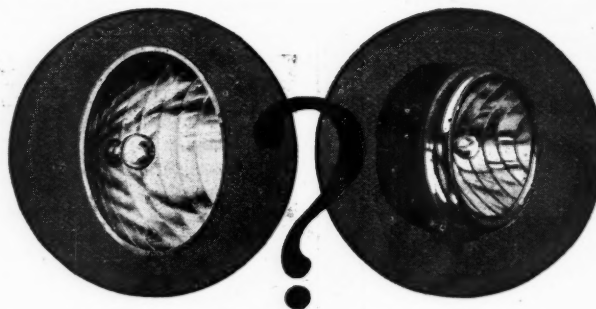
POINT 3 flatlites are legal everywhere and proved in service. flatlite reflectors are in use everywhere. This proves car-owner acceptance yet leaves a big market still to be supplied.

POINT 4 flatlites are easy to stock, easy to sell and easy to install. Three models of reflectors in two sizes supply all headlamps. Four models of flatlite headlamps fit all cars. flatlite reflectors go in right over the old reflectors, plain glass (furnished) replacing patent lenses.

flatlites sell with one simple demonstration to practically every prospect and a flatlite prospect is anybody who owns a car not already equipped to give the kind of light that flatlites give.

POINT 5 flatlites have no known sales resistance. The low price of flatlites is usually a surprise to car owners, and this, balanced against what they bring in comfort, safety and freedom from legal difficulties, makes it quickly apparent that for sheer money's worth, flatlites have no equal in the accessory field.

✓ **flatlite**



REFLECTOR or HEADLAMP

Whichever the car owner needs

There is a vital need for the kind of light that flatlites give. Being available in two forms flatlite takes care of any existing condition of car owner's present equipment.

If he has good headlamps you sell him flatlite reflectors, which go right in over his present reflectors, the plain glass supplied replacing his present lenses.

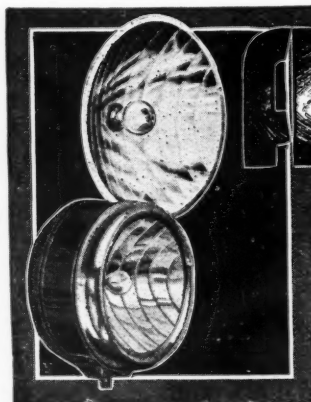
If he needs new headlamps you sell him flatlite headlamps complete.

A comparatively small stock of flatlite reflectors takes care of all reflector replacements just as a small stock of flatlite headlamps covers all headlamp replacements.

flatlite is from every merchandising viewpoint a perfect accessory.

For profits' sake get into this business at once. Write us today.

flatlites bring daytime safety to nighttime driving



flatlite

REFLECTORS
for replacement in any headlamp
HEADLAMPS
to fit all cars

Write us for particulars.

Department A

THE AMERICAN FLATLITE CO.
Reading Road at Dandridge Street
Cincinnati, Ohio

From its own factory in Indianapolis thousands of new cylinders are shipped each year to its 31 plants manufacturing

Prest-O-Lite

DISSOLVED ACETYLENE

THE PREST-O-LITE COMPANY, INC.

Oxy-Acetylene Division

General Offices: Carbide & Carbon Bldg., 30 East 42d St., New York

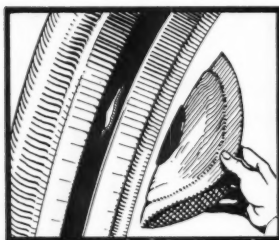
In Canada: Prest-O-Lite Co. of Canada, Limited, Toronto

31 Plants—60 Warehouses—22 District Sales Offices

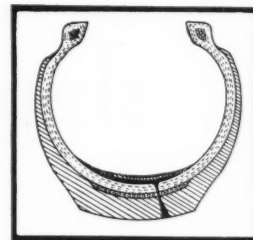


GATES BULLSEYE PATCH

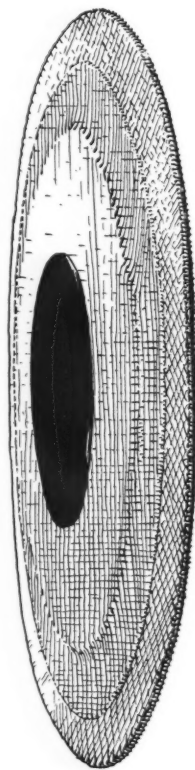
"The Amalgamation Patch"



The Gates Bullseye self-vulcanizing tire patch *permanently* repairs holes, cuts or breaks (up to 2 inches long) in tire casings of either Balloon or Standard type.



The "bullseye" in the center is amalgamation gum which fills and permanently seals the hole or crack. The entire patch vulcanizes itself to the inside of the casing.



Tire prices have been advancing—more tires are being repaired. Dealers are making substantial profits and pleasing their customers by supplying the tire patch that makes a **permanent** repair—the Gates Bullseye Patch.

Made by the World's Largest
Manufacturers of Fan Belts

No car in its class has its style those DuPonts' colors are a dream.

You can't beat it.

I can drive it for hours without becoming tired.

Wonder how Buick performance could be improved — but it has been done.

I have discovered in Buick, a new

I never thought one could get such luxury at such a price. It plays with cars I thought were powerful.

Can I get delivery tomorrow?

It's lots nicer looking than any car I've ever seen.

A rare combination of ruggedness and beauty.

My husband bought a Buick and now my driving and parking troubles are over.

How can Buick give so much motor car at such a low price?

It is lovely to look at —
How delightful to drive —
DuPont

That's just the way my daughter has been looking.

Your right! It is a better Buick.

When you step on it it leaves.

My friends are all when they ride with me.

Everybody Says So

The Better BUICK

Those desiring the Buick franchise should have their names on file.

Did You Enjoy This Copy?



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Each and every man in the trade needs MOTOR AGE—needs the positive help

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HIRING—How to get the right men—How to train them—How to pay them—How to get their co-operation—How to keep them enthusiastic.

BUYING—How to select an accessory stock—How to judge merchandise—How to get a fast turnover—How to avoid dead items.

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AND THEN . . .

Whatever else you need to know to make your business run smoothly MOTOR AGE will tell you if you only ask—All personal inquiries receive personal attention from our editors. Every subscriber is encouraged to come to us with his problems, whether mechanical, legal, architectural or financial. Try us, and we will give you "Service you will like."

THE COUPON is here for your convenience. If you are already a subscriber, pass it on to some friend in the trade who is not. When he starts getting MOTOR AGE he'll appreciate the favor.

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Gentlemen: Enclosed find \$3.00 to pay for a year's subscription to MOTOR AGE, including all special issues published during the life of my subscription.

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Street and Number

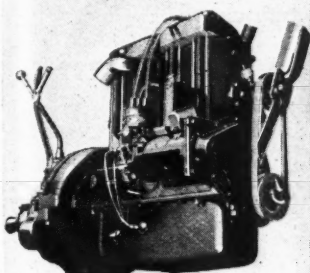
City State

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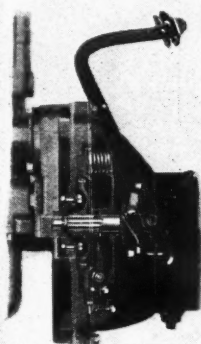
IMPORTANT—MOTOR AGE is published exclusively for the trade. Subscriptions are accepted only from those actively engaged in our field—so please don't forget to include your business card or letter head with this order.

NOTE: If you are already subscribing to MOTOR AGE, please hand this coupon to a dealer who is not. He'll become a better competitor from reading MOTOR AGE.

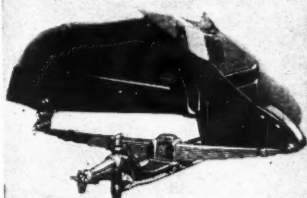
Features of the New Chevrolet One-Ton Truck



Powerful Chevrolet Valve-in-head motor equipped with oil and water pumps, vacuum tank and Remy starting and ignition.



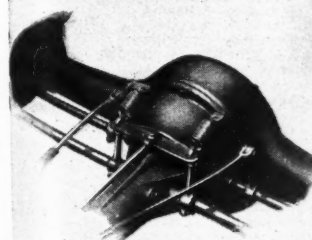
Chevrolet single plate dry disc clutch completely enclosed against dirt and water - easy to operate; requires no lubrication.



Heavy front axle and semi-elliptic springs for strength and easy driving.



Extra heavy 6 inch channel steel frame hung low over axles for easy loading.



New heavy truck type rear axle; one piece pressed steel housing; extra heavy special cut driving gears; large spring seats; brake equalizers.

for Economical Transportation



NEW—a sturdy one-ton truck has just been added to Chevrolet's fast selling line of passenger and commercial cars. It is built especially for commercial service with chassis units designed to stand up under heavy truck duty.

Chevrolet is the world's third largest builder of commercial vehicles. Now this new quality one-ton truck chassis gives Chevrolet dealers a still greater opportunity for profitable business in the commercial field.

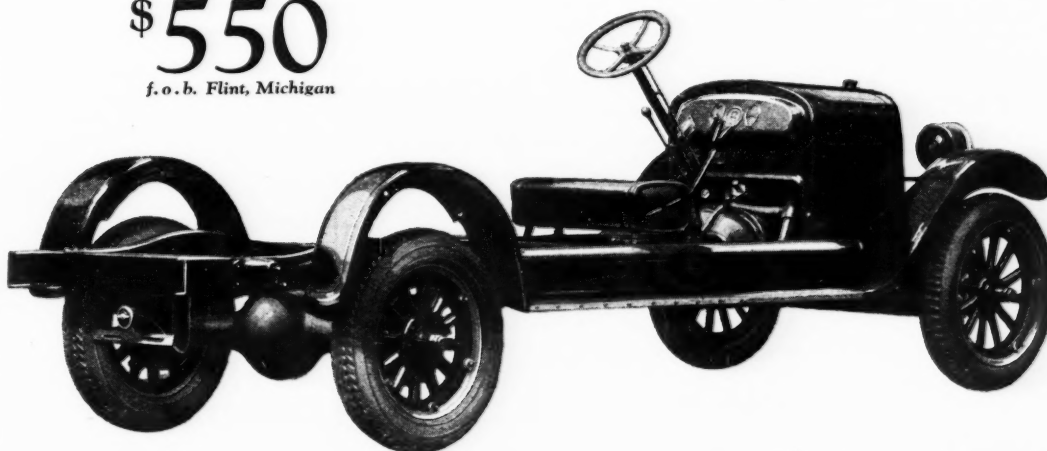
QUALITY AT LOW COST

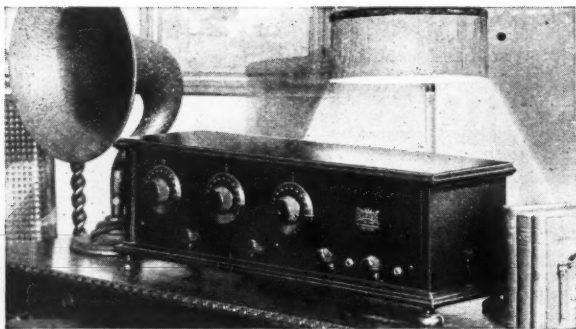
CHEVROLET MOTOR COMPANY, *Detroit, Michigan*
Division of General Motors Corporation

The ONE-TON
CHASSIS

\$550

f. o. b. Flint, Michigan





Amazing New Kind of Radio Set

AMBU FIVE gets all programs from 40 to 600 meters—coast to coast extremely selective five tube tuned frequency—taking country by storm.

NO wonder everyone says the AMBU FIVE is the best tuned frequency radio set on the market. Two amazing new inventions—the inlaid copper subpanel that provides automatic wiring, and the nine interchangeable all-wave coils that get all stations—coast to coast—from 40 meters to 600 meters—put it far ahead of all other sets.

DEALERS Cleaning UP—BIG!

This amazing set overnight has become the favorite of thousands. Factory production has been doubled twice to keep up with tremendous demand. No jobbers. You buy direct from manufacturer and make all the profit.

Retails for Half

The amazing AMBU FIVE if sold through jobbers would bring \$115 at retail. By eliminating the jobber you buy at jobbers' prices and retail at \$65, almost half regular retail price. Undercut all competition. Dominate sales in your territory and make big money on every sale. Also full line of accessories such as loud speakers, tubes, batteries, aerials, cabinets, etc.

Fill in and mail this free offer coupon immediately for full information. If already in radio business the AMBU FIVE will double and treble your profits. If not selling radio now, here is a quick, easy way requiring no big investment by which you can clean up. Get this coupon in the mail today for free facts. No obligation.

**Mail
Coupon
for
Facts**

Ambu Engineering Institute
DEPARTMENT 30-J

2632 Prairie Avenue, Chicago, Illinois

AMBU ENGINEERING INSTITUTE

Department 30-J

2632 Prairie Avenue, Chicago, Illinois

Send at once free facts concerning dealer proposition on AMBU FIVE. I am not obligated.

Name.....

Address.....

City.....State.....

☐ Check here for information on radio course.

No jobbers, you get all the profit.

By the AMBU plan you buy at jobbers' prices and sell at \$50 less than other dealers get for the same quality set. Or charge full price and treble profit.

Demonstrator set FREE on this plan.

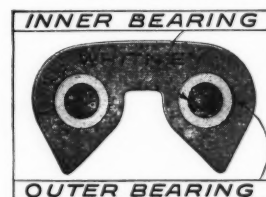
If you want complete course in radio you can get demonstrator set free. If interested in this plan check coupon in space provided.

Meet That Demand for Dependable Timing Chains

By putting in a stock of

"WHITNEY"
SILENT HIGH MILEAGE CHAINS

THE "WHITNEY"



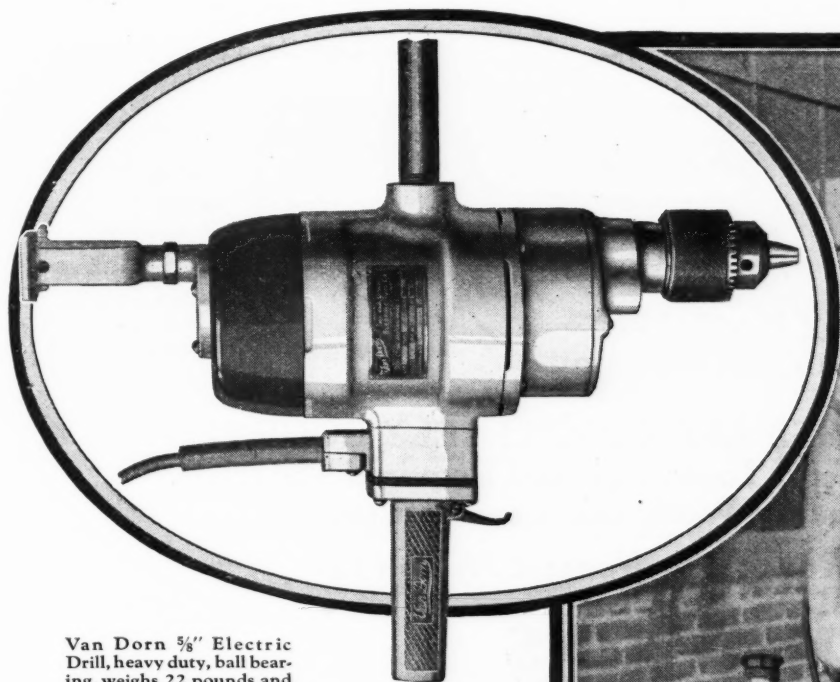
DOUBLE CONCENTRIC BEARING JOINT

Higher Mileage PROVED by Test of Years
WRITE NEAREST DISTRIBUTOR

Authorized distributors listed below

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| Alabama—Birmingham Birmingham Electric Battery Co. | Nebraska—Omaha Auto Elec. & Radio Corp. |
| Arkansas—Little Rock Crow-Burlingame Co. | New York—New York City L. C. Bigelow & Co., Inc. |
| Canada—Montreal Finestone Auto Parts Co. | New York—Albany E. V. Hoyt Distributing Co. |
| Canada—Saskatoon Bowman Bros., Ltd. | New York—Binghamton United Auto Gear & Parts Co., Inc. |
| Canada—Toronto Standard Metal Goods & Auto Parts Co., Ltd. | New York—Buffalo Buffalo Bearings Co. |
| California—San Francisco A. H. Coates Co. | New York—Rochester Sidney B. Roby Co. |
| Colorado—Denver Auto Elec. & Appl. Co. | New York—Syracuse Syracuse Auto Parts, Inc. |
| Connecticut—Hartford Connecticut Auto Parts Co. | New York—Utica Utica Gear & Auto Parts Co. |
| Connecticut—New Haven Replacement Parts Co. | Ohio—Akron The Hardware & Supply Co. |
| Connecticut—New London New London Auto Parts Co. | Ohio—Cincinnati The Baker Auto Parts Co. |
| Florida—Tampa Wholesale Auto Supply House | Ohio—Columbus The Griswold-Sohl Co. |
| Georgia—Atlanta Alexander Seewald Co. | Ohio—Cincinnati Auto. Bear. & Equip. Co. |
| Illinois—Chicago L. C. Smith Bearings Co. | Ohio—Cleveland Aberdeen Motor Supply Co. |
| Indiana—Indianapolis Gibson Company | Ohio—Dayton The Lewis Motor Mart Co. |
| Iowa—Des Moines Standard Bearings Co. | Ohio—Toledo Toledo Standard Parts Co. |
| Iowa—Sioux City Ralph C. Schwinn Co. | Ohio—Youngstown E. E. Emery Co. |
| Kansas—Wichita E. S. Cowie Electric Co. | Oklahoma—Oklahoma City Harrison Smith Co. |
| Louisiana—New Orleans Borden-Aicklen Auto Supply Co., Inc. | Pennsylvania—Erie Reliable Auto Parts Co., Inc. |
| Maryland—Baltimore J. R. Hunt & Co. | Pennsylvania—Philadelphia Auto Equip. & Ser. Co., Inc. |
| Maine—Portland The Farrar-Brown Co., Inc. | Pennsylvania—Pittsburgh Pittsburgh Auto Equip. Co. |
| Massachusetts—Boston Replacement Parts Co. | Rhode Island—Providence W. E. Davis Co. |
| Massachusetts—Springfield E. B. Atmus Co. | South Carolina—Charleston Gas Engine & Electric Co. |
| Michigan—Detroit Mich. Replacement Parts Corp. | South Carolina—Columbia Columbia Electric Service Co. |
| Minnesota—Duluth Duluth Auto Supply Co. | Tennessee—Chattanooga James Supply Co. |
| Minnesota—Minneapolis Western Motor Supply Co. | Tennessee—Memphis Mills-Morris Co. |
| Minnesota—Rochester National Bushing and Parts Co. | Tennessee—Nashville Keith-Simmons & Co. |
| Minnesota—St. Paul Ramsey Motor Service Co. | Texas—Dallas Harrison Smith Co. |
| Mississippi—Jackson Robinson Bros. Motor Co. | Vermont—Burlington Vermont Hardware Co. |
| Missouri—Kansas City E. S. Cowie Electric Co. | West Virginia—Charleston Motor Car Supply Co. |
| Missouri—St. Louis Auto Parts Co. | Washington—Seattle A. H. Coates Co. |
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THE WHITNEY MFG. CO.
HARTFORD Connecticut



Van Dorn 5/8" Electric Drill, heavy duty, ball bearing, weighs 22 pounds and sells for only \$75.00.

Cutting Stock On All Sides

Cutting stock from cylinder walls with a hone is a real job and it takes a powerful heavy duty electric drill to do it.

Van Dorn drills have come into their own with the increasing use of cylinder hones in garages and service shops. High powered motors built specially to drill holes and do heavy duty work make these drills capable of handling the hardest garage jobs.

They have "More Power Per Pound" and prove it in honing.

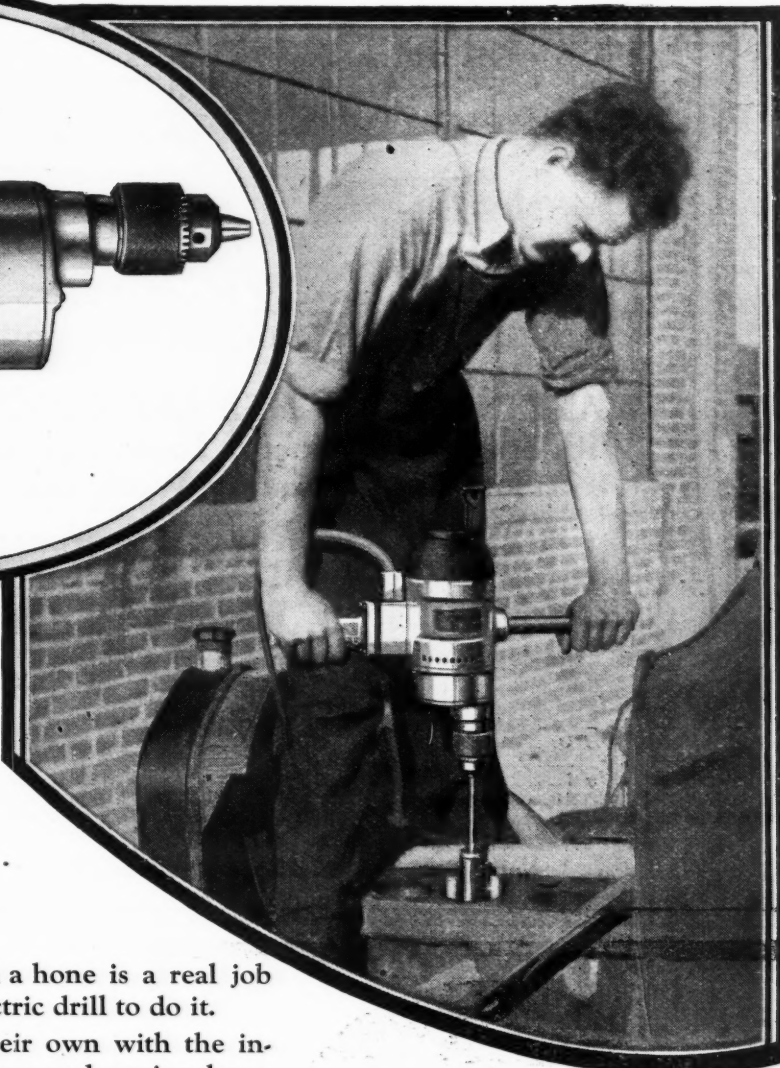
If you are having trouble with your drill—if it stalls on your honing jobs—Try a Van Dorn. You'll like the ball bearings and automatic release safety switch too.

Ask your jobber about them or write for complete catalogue.

The Van Dorn Electric Tool Company

Makers of Portable Electric Drilling, Reaming and Grinding Machines, Etc.

Cleveland, Ohio

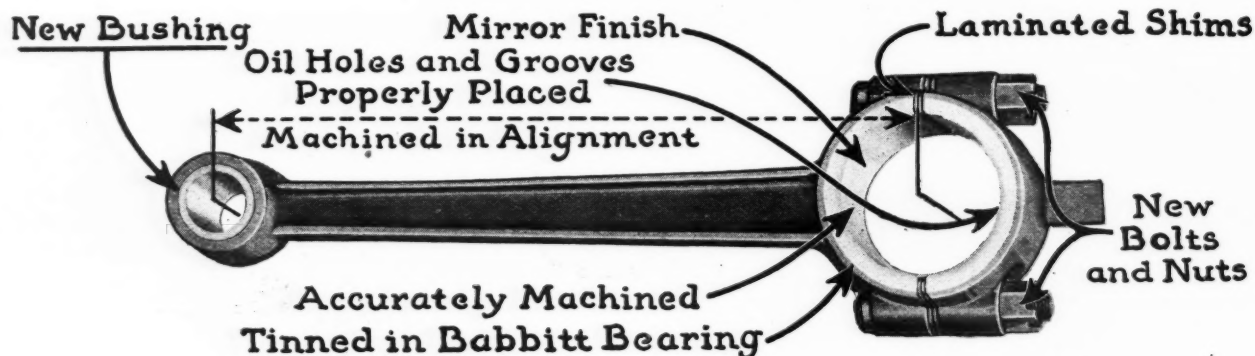


Van Dorn 5/8" Electric Drill driving hone for refinishing automobile cylinders.

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| Atlanta | Philadelphia |
| Boston | Pittsburgh |
| Buffalo | Richmond |
| Chicago | St. Louis |
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"Van Dorn"
ELECTRIC
TOOLS



WATKINS BRANCHES ARE COMPLETELY EQUIPPED
With Special Machinery, Tools, Jigs, and Required Materials.
This Insures Quality Work and User Satisfaction.

Send Your Rods to the Nearest Station for

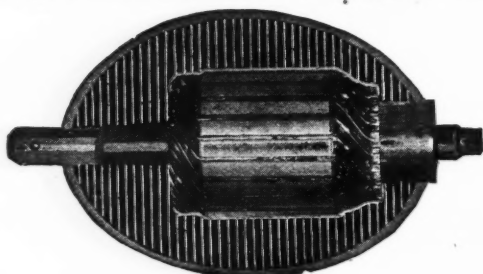
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Complete REBABBITTING
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 OMAHA, NEBR.....1006-10 Douglas St.
 PORTLAND, ORE.....14th & Everett Sts.
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 SYRACUSE, N. Y.....201-211 Wyoming St.
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Authorized Exclusively to Rebabbit Buick Rods by Buick Factory



LIVE Ones Cash In on DEAD Armatures

Ship burnt-out armatures to Fredericks and exchange them for rewound ones guaranteed for 90 days. A little booklet, chuck full of interesting dope and prices, will be sent to you free if you'll just send your name.

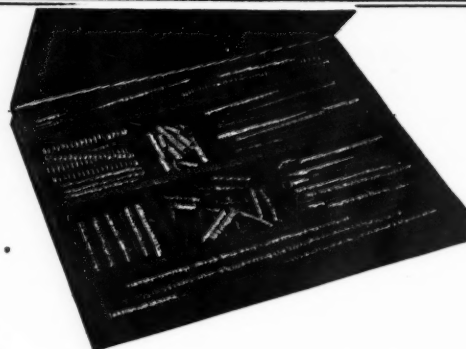
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|---|--------|
| FORD GENERATOR Armatures Rewound..... | \$1.50 |
| FORD Starter Armatures Rewound..... | 1.50 |
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GUARANTEED to give the same satisfaction as new armatures.

The H. M. FREDERICKS CO., Lock Haven, Pa.

FREDERICKS
 Rewinding Service

PECK SPRINGS



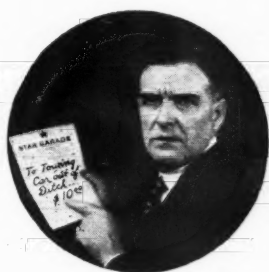
\$3⁵⁰
 LIST

Practically Every Spring Needed for Auto Repair Work

The spring you need WHEN you need it in this wide assortment of Peck Springs for Garage and Service Station use. About 250 springs ranging from 1 to 10 inches in length up to 1/4 inch in dia. in both extension and compression varieties in Brass and Steel, Japanned finish. The

box is very durable and arranged into compartments for quick, easy handling. A spring at your finger tips. Your profit on this Peck Assortment will be \$59.00 if you get only 25 cents a spring. Order from your jobber or direct mentioning his name.

THE PECK SPRING CO., Plainville, Conn.



"I could buy an Autowline at half the cost!"



"Oh, if we only had an Autowline!"



"Out she comes with good old Autowline!"



"A life preserver for every motorist!"

Push the ORIGINAL Wire Rope Towline!

Remember—and tell your trade to remember—that when a towline is needed, it wants to be an absolutely *dependable* one. Keep in mind that **BASLINE AUTOWLINE** is made of genuine Yellow Strand Wire Rope, famous for many years—that it has a reputation for quality, strength and dependability attained by no other towline.

Pays You a Good Profit

Jobbers and Dealers, send for our current price list and you'll see that you can meet the competition of practically any other honest towline on the market—and make some real money doing it!

BRODERICK & BASCOM ROPE CO., St. Louis

Eastern Office and Warehouse, 76 Warren St., New York City

JR339

*There are Profit Making Ideas
in Every Issue of*

MOTOR AGE

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As a means of business-building this is a profitable habit to encourage, both for the benefit of the organization and its individual members. It is always best to read **MOTOR AGE** every week.

MOTOR AGE

5 SO. WABASH AVE.

CHICAGO, ILL.

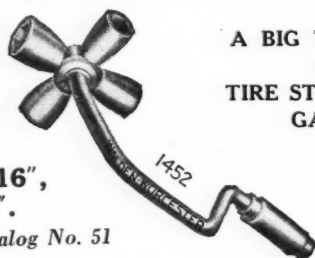
FOUR SOCKET RIM WRENCH

Four
Sockets
5/8", 1 1/16",
3/4", 7/8".

Ask for Catalog No. 51



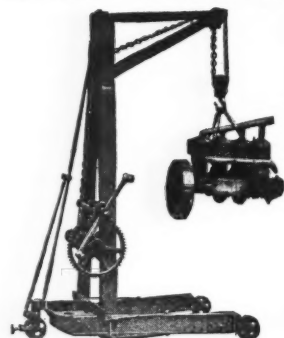
WALDEN-WORCESTER
INCORPORATED
WORCESTER, MASS.



A BIG TIME SAVER
FOR
TIRE STATIONS AND
GARAGES

Get a Manley

Portable Floor Crane



The Manley Portable Floor Crane possesses all the essentials of a crane for the best and most economical automobile repair work. It has high lift, deep overhang, ample lifting capacity and great strength. And, at the same time, due to revolutionary design, the Manley Crane has the greatest lightness in weight.

Write for the complete catalog of Manley Equipment.

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R.I.V. Means Quality
in Every Language



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PROTECTOMOTOR 99 ⁹/₁₀

REG. U.S. PAT. OFF.
Perfect Positive Protection

Filters all dust, sand and grit out of air supply to carburetor and motor. Write us for facts.

STAYNEW FILTER CORPORATION
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EFFICIENT

MONOGRAM ORIGINAL SELF LOCKING RADIATOR CAP

THE KINGSLEY-MILLER CO.
Successors to
(General Automotive Corporation, Chicago)
600 West Jackson Boulevard Chicago



They Won't Come Back

Those jobs won't come back showing oil passing, compression loss and crank-case dilution if you use a Hall Hone. The Hall makes cylinders both round and parallel. Ask your jobber.

THE HALL MFG. COMPANY
508 Hall Bldg., 1600-06 Woodland Ave.
Toledo, Ohio



"Made to Blue Print"

"Bp"

guarantees to the Replacement Trade the same high standard of Quality and Accuracy demanded by the car manufacturer.

"Bp"

The Fostoria Screw Co., Fostoria, Ohio

TIMKEN Tapered ROLLER BEARINGS



Rubber Tubing for the Trade

EKLA radiator hose—All-Rubber or Cloth-Inserted, tire pump hose and windshield wiper tubing, all in standard lengths, will show you better profits and your customers better service. Insist on EKLA Brands when buying these items.

THE ECLAT RUBBER COMPANY
Cuyahoga Falls, Ohio

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—is the time to read next week's issue of MOTOR AGE, as you are reading this week's issue this week.

MOTOR AGE

5 So. Wabash Ave.

Chicago, Ill.



Write for
Attractive Discounts

Always Insist Upon
Genuine
Apex Innerings

Most good
Jobbers stock them
If it isn't an Apex—It isn't an
Innering

THOMSON MFG. CO.
Dept. C Peoria, Ill.

KISSEL CUSTOM BUILT Kissel Motor Car Co., Hartford, Wis.

CRANE

Wheel and Gear Pullers

CRANE PULLER COMPANY

South Deerfield, Mass. U. S. A.



Look for a Jacobs Chuck on the Drill you buy—

The patented Tooth and Sleeved Key feature saves time, prevents slippage, reduces the breakage of drills and gives greater accuracy. Jacobs Chucks are the specified equipment of 132 makers of Drilling Machines and Portable Drills.

SERVICE-MEN

Start a profitable battery charging service with this

BURTON & ROGERS 5 BATTERY SERVICE CHARGER

and increase your earnings and good-will. Pays for itself in 2-3 months.

BUILT FOR 110 VOLTS
NO POWER LINE NEEDED
Standard model 60 cycles, other cycles if desired

PORTABLE AND RUGGED
PRICE \$60.00 COMPLETE
WITH BULB

We make larger chargers too
Send for our charger booklet
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755 Boylston St., Boston, Mass.



MORRISON

Automatic Double Range

Worm Drive JACKS



Can't Slip or Tilt

Flexible steel "Sure Hold" cap prevents dangerous slipping. Long folding handle (36 to 72 in.) operates from standing position. Gets under overhanging bodies. Easy to work. Few turns and it's up. Built in 11 sizes for all service requirements up to 8 tons. Furnished as standard equipment on fine passenger cars, trucks, buses and Fire Apparatus for past 4 years. The Jack for YOUR shop. Write for sample for test.

THE WOODS ENGINEERING CO., Alliance, Ohio



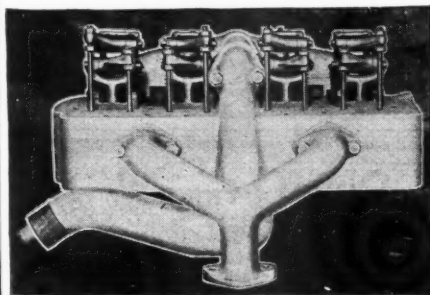
Perfectly Balanced!

Every spoke of uniform size, weight, and strength. Folded seam along inner side of spoke gives strength of four thicknesses of metal. Withstands severe shocks without collapsing.

Made for Ford, Gray, Star and Chevrolet cars. Price \$28.50 per set. Natural wood or Duco finish at slight extra cost. Standard colors:—black, red or blue enamel. Write for descriptive Folder HS-8.

The Dayton Wire Wheel Company, Dayton, O.

ROOF 16 OVERHEAD VALVE EQUIPMENT For Ford and Dodge Motors ROOF 8 VALVE HEAD FOR FORD MOTOR



Stupendous Power— Lightning Speed

Ford racing cars with Roof Equipment are rivals on mile and one half mile tracks of the highest priced racing cars. Doubles the pulling power of the Ford or Dodge pleasure car or truck. Hill climbing and general road work beyond wildest dreams of the owner. Complete—ready for installation—no machine work necessary. We are headquarters for all speed equipment. No matter what you want, write us. Racing quality—lowest prices. A postal card brings you complete list of our specialties.

Jobbers—Dealers—Consumers—Write Us.
THE LAUREL MOTORS CORPORATION, ANDERSON, INDIANA

AUCTION

By order of the Circuit Court of Cook County we will on

TUESDAY, SEPTEMBER 1, 1925

AT 10:30 A. M.

AT 1526 S. PEORIA ST., CHICAGO, ILL.

on the premises of the Griswold Walker Warehouse
sell at public auction the entire assets of the

KRASBERG PISTON RING CO.

manufacturers and distributors of the V-Plex Piston Rings

INVENTORY VALUE OVER \$125,000

Consisting of:

Over 175,000 partly finished V-Plex and plain piston rings. All machine tools, motors, small tools and equipment.

Also the receiver's right, title and interest in and to the good will of the Krasberg Piston Ring Co., together with an assignable contract between the Krasberg Piston Ring Co. and the V-Plex Piston Ring Co. which gives the Krasberg Piston Ring Co. the exclusive right to manufacture V-Plex Piston Rings on a Royalty Basis.

Descriptive circular will be mailed on request.

CHICAGO TITLE AND TRUST CO., RECEIVER
CHAS. C. BARTLETT, ATTY. FOR RECEIVER

MICHAEL TAUBER & CO.

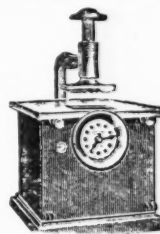
Auctioneers

317 S. Market St.

CHICAGO

FOLLETT'S NEW MODEL TIME STAMP

accounts for every labor minute



Prints the year, month, day, hour, minute, A.M. or P.M. at the exact moment the plunger is pressed—like this, for example:

NOV 19 1920 4 31 PM

Tells when a job is started—and when it is finished. There can be no dispute over the time charge.

Absolutely automatic—except for winding. Every machine guaranteed.

Follett Time Recording Co., 217 High Street, Newark, N. J.
"Established Since 1904"



Services of our Engineering Department are at your command at all times on layouts where Angular Contact Radial Bearings or Angular Contact Thrust Bearings are used. Our experience is broad and covers many years. When may we be of service to your organization?

The Bearings Company of America
Lancaster, Penna.

Western Sales Office,
1012 Ford Bldg.,
Detroit, Mich.

CURTIS
AIR COMPRESSORS-HOISTS-TROLLEYS-CRANES
ST. LOUIS CPMfg Co.

Curtis Pneumatic Machinery Co. 1527 Kienlen Ave. St. Louis, Mo.

Klean-Rite
AUTO LAUNDRY

A KLEAN-RITE Auto Laundry Franchise is a Big Money-Maker

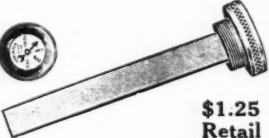
Write for a copy of our booklet on "The Business Possibilities of An Auto Laundry." It contains valuable information. Sent free upon request.

KLEAN-RITE AUTO LAUNDRY CO.
1710 E. 75th St., Chicago

A Quick Seller and a Tremendous Market

FORD, CHEVROLET and OVERLAND owners buy this TASCOS Gauge on sight. It screws in place of the filler cap—saves "measuring" the gas—and it is guaranteed for the life of the car. They sell all the time.

THE AKRON-SELLE CO., Akron, O., U.S.A.

 \$1.25 Retail

BRUNNER
AIR COMPRESSORS
FREE

Write for the Book "AIR PROFITS" describing many new uses for compressed air. Shows how to make an air compressor earn greater profits.

BRUNNER MFG. CO.
UTICA NEW YORK

Kawneer
SOLID COPPER
STORE FRONTS

Write for Special Book Garage Front

THE KAWNEER CO., 2224 Front St., Niles, Mich.

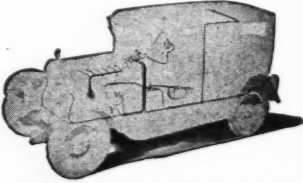
DIERINGER
BUSHING REMOVER

Any spindle bushing out in two minutes! Merely insert tool, drive on with hammer. Full set of 3 sizes covers all cars. \$4.50. Write for trade discount. Distributors wanted.

E. T. Dieringer, Box 282, Bellvar, O

Packard
Cable

The Packard Electric Co.
Warren, Ohio



RAMCO
Cushion
INNER RINGS

fit behind piston rings and keep them in perfect contact with the cylinder walls at any motor speed or temperature.

RAMSEY ACCESSORIES MFG. CORP., ST. LOUIS, MO.

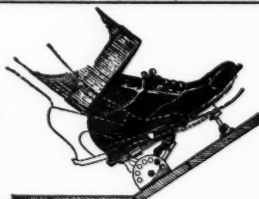
Cushers

CHICAGO ROLLER SKATE CO.
Manufacturers of Screw Machine and Automotive Products
Cushers Sales Dep't, Fulton-Dean Co.
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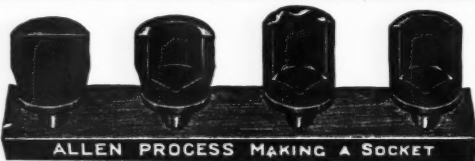
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Adjusts comfortably and easily to most convenient height for any driver's leg. Foot lies in normal restful, uncramped, safe position. Big, fast seller. Senior, \$3.50. Junior, \$1.25. Ask your jobber.

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ALLEN Wrench Sets

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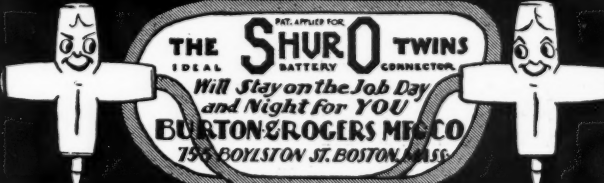
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Will Stay on the Job Day and Night for YOU

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FLOWER CITY SPECIALTY CO.
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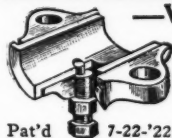
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Less
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Dept. M.

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Manufactured by
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The highest grade for
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The Temco Electric Motor Co.
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PATENTED MAY 6, 1925
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CRAVEROILER CO. OF AMERICA
Division of Miller Lock Co.
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Cooled, Stationary, Portable. Our low prices enable you to get a Compressor for a small investment. Send for literature.

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Attorney-at-Law and Solicitor of Patents

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Formerly Member Examining Corps, United States Patent Office

American and foreign Patents secured. Searches made to determine patentability and validity. Patent suits conducted. Pamphlet of instruction sent upon request.

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—and
**Lets Loose
Again**
When You Want It To!

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That is one of the advantages of KEY Graphite Paste. It will not stick or hinder in the removal of gaskets.

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Sample—FREE

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M.A.—8-27-25

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Five Ratchet
Adjustments

1. Plain Drill
2. Left-hand Ratchet
3. Right-hand ratchet
4. DOUBLE ratchet
5. Gears Locked

Drilling fender to install stop-signal, or parking light. One of the many jobs for which this handy little tool can be used.

Dwarf in Size Giant in Service

"Yankee" Hand Drill No. 1530 is only 10½ in. long and weighs but 1¼ pounds. Yet it has all the famous ratchet adjustments of the big "Yankee" Hand Drills and "Yankee" Breast Drills.

Works in places impossible for other drills, by means of five ratchet adjustments (controlled at a finger-touch).

DOUBLE Ratchet-drill cuts *continuously* when crank is moved but an inch to and fro.

"YANKEE" Ratchet Hand Drill No. 1530

Has 3-jaw chuck that holds round drills up to 3/16 in.

Some other "Yankee" Tools

Ratchet Bit Brace Ratchet Screw-drivers
Ratchet Bench Drills Ratchet Chain Drills

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"Yankee" on the tool you buy means the utmost in quality, efficiency and durability

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Are you a tool lover? Read about the ingenious line of famous "Yankee" tools, used by mechanics everywhere. Write for this FREE Book today.

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"YANKEE" TOOLS

Make Better Mechanics

Writers who mould automotive thought

His Articles Have Punch Because He Is Master of His Subject



LEON F. BANIGAN
Editor
Motor World Wholesale

The old adage, "Knowledge is power," is just as true today as it ever was. The most interesting articles and stories are those written by men who *know* whereof they speak—therefore, can write with force and conviction.

Herein lies the secret of Leon F. Banigan's success as a writer of merchandising articles. He *knows* merchandising. He knows it by actual experience, by personal contact with successful merchandisers, by close study of the subject.

When Banigan writes an article on merchandising he doesn't get his information from books written by professors or theorists or from other men's stories. He has a better library than that. He draws on his well-stored mind for facts about existing conditions, methods that have been successful, plans that worked well and ideas that are profitable. The result is a practical, helpful, interesting article.

Banigan's merchandising articles in Motor World were so sound and constructive they have been extensively reproduced in the house organs of many large manufacturers and distributors and by national automotive associations. They also have given him a great standing with the trade.

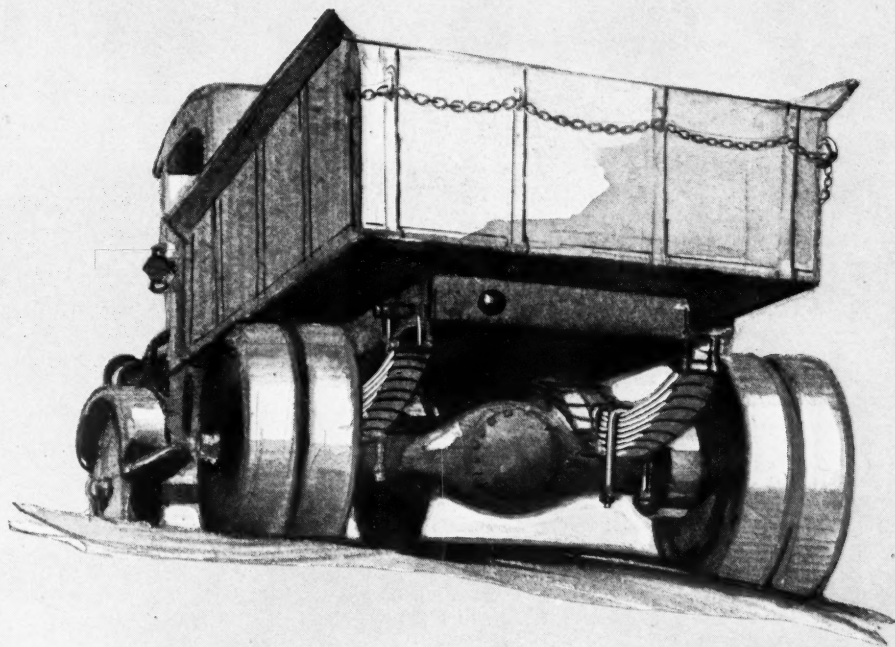
Mr. Banigan formerly was a newspaper man, serving on New York and New Jersey daily newspapers in the capacity of reporter, editorial writer, automobile editor, financial and business editor, and news editor, directing large staffs of news gatherers and special writers.

For six years he has been connected with Motor World, successively being news editor, assistant editor and then managing editor. All this experience has admirably fitted him for his position as editor of MOTOR WORLD WHOLESALE and he can be counted on to make this publication of inestimable value to the wholesalers of the country.

This is the sixth of a series of announcements dealing with the editorial strength of Chilton Class Journal publications. Each issue will carry a brief sketch of an editor or principal contributor to the group.

The purpose of this series is to place before you the facts about our editorial work so you may know its scope and magnitude and the ability, experience and attainments of the men whose articles you read in these publications.

PERFECTION



Exact Duplicates of Original Equipment

PERFECTION SPRINGS for replacement are made *exactly* to Car and Truck Manufacturers' specifications.

They not only fit dimensionally—but in quality and heat treatment of steel, in camber, number and thickness of leaves, and all other respects, they are exact duplicates of the Springs used

as original equipment on America's leading cars and trucks. This is only natural, as a large percentage of that original equipment is Perfection Springs.

THE EATON BUMPER & SPRING SERVICE COMPANY

(The Eaton Axle & Spring Company, Manufacturers)

Cleveland

Chicago

New York

Boston

Philadelphia

Detroit

Dallas

Atlanta

SPRINGS

Another *“Rich Man’s Toy”*

Like the automobile itself, the steel wheel first was a “rich man’s toy.” Then came Tuarc steel wheels with demountable rims, direct outside tire inflation, standard hubs, correct load distribution, and consistent lightness. Tuarc, a Motor Wheel product, has made steel wheel beauty and strength practical for all cars!

Tuarc naturally gained a lead which has only increased with the vogue of steel wheels. The wheel-building talent which underlies Tuarc acceptance by engineers and motorists is the reason Motor Wheel supplies wheels to more car manufacturers than does anybody else.

MOTOR WHEEL CORPORATION, LANSING, MICHIGAN
WOOD WHEELS • STEEL WHEELS • STAMPINGS

Tuarc

S T E E L W H E E L S

In This Issue—*"Slick Up" Now for Winter Business*

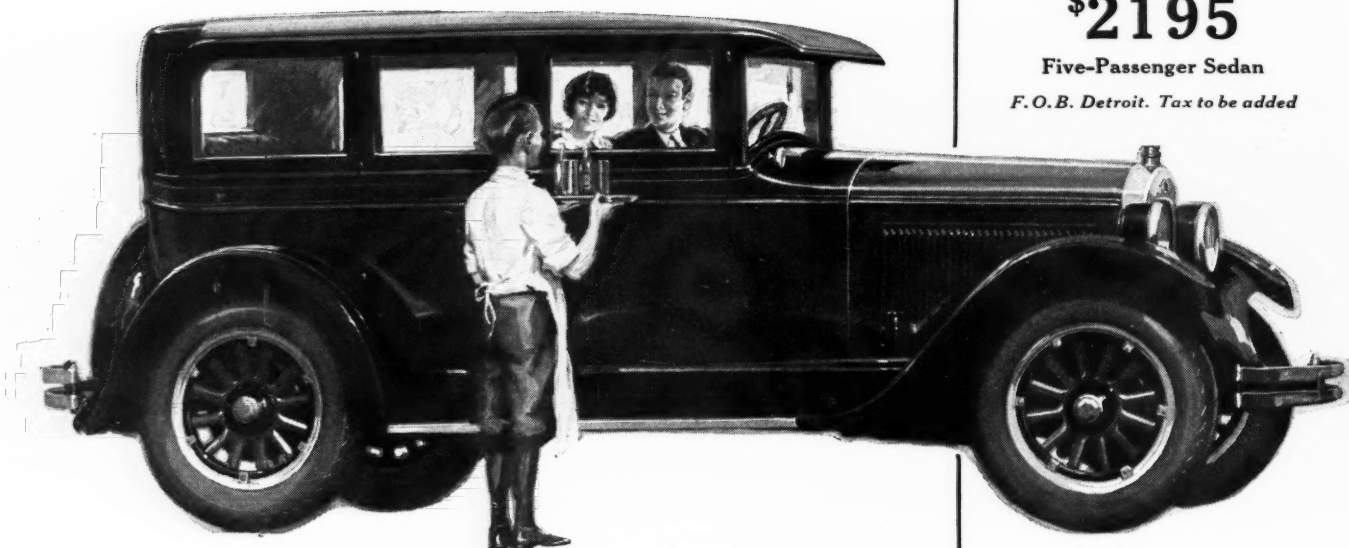
MOTOR AGE

Vol. XLVIII
Number 10

PUBLISHED WEEKLY AT 5 SOUTH WABASH AVENUE
CHICAGO, SEPTEMBER 3, 1925

Thirty-five Cents a Copy
Three Dollars a Year

**Jordan will announce
shortly an astounding
new Line Eight
series of motor cars at
prices which will give
them immediate domi-
nance in their field.**



\$2195

Five-Passenger Sedan

F.O.B. Detroit. Tax to be added

Schedule your run at any speed you like—all day long if you like—and *make your schedule* with an ease and comfort you've never known before. Be off, free and clean, at the traffic signal while the crowd mills and fusses along behind. This magnificent Eight brings so much that is new and finer in driving that within its first six months it became the *largest-selling eight* of its type in the world.

HUPMOBILE EIGHT

Andrew G. Nystrom, of Hartford, Conn., was a bit skeptical about the Hupmobile Eight, so he drove one for 200 miles or more over mountains, country roads and in heavy traffic. That sold him. He owns one now.

≡ ≡ ≡

Mrs. Maurice Gardner, of Cleveland, was so captivated by the Hupmobile Eight her husband bought for use in his brokerage business that she now drives a Hupmobile Eight of her own. Both their cars are sedans.

≡ ≡ ≡

Mrs. B. J. Hall, of Baltimore, Md., calls the Hupmobile Eight the easiest driving car for women that she has ever known, and wonderful in performance and riding qualities.

≡ ≡ ≡

Since David R. Hicks, of Toledo, Ohio, became owner of a Hupmobile Eight Sedan, he considers his week-end motor trips to visit his mother in Gallipolis, Ohio, a finer treat than ever. The 200-mile runs across the state, from Toledo to Gallipolis, to use Mr. Hicks' own words, are done with no more preparation or fuss than for an afternoon's jog around Toledo.

≡ ≡ ≡

The Hupmobile Eight brings to the dealer a wide sales opportunity—and the prestige which attaches to handling a fine car which has achieved an almost sensational success.

18,966,966

QUALITY Brand Piston Rings

Shipped during the first six months of 1925

Manufacturers Who Use Quality Rings as Standard Equipment

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Advance-Rumley Company
Alamo Engine Company
Allis-Chalmers Mfg. Co.
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The Arctic Ice Machine Co.
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Dean Brothers Co.
Dempster Mill Mfg. Co.
Dodge Brothers, Inc.
Fairbanks, Morse & Co.
Federal Motor Truck Co.
The Foos Gas Engine Co.
Ford Motor Co. (Lincoln)
Fuller & Johnson Mfg. Co.
The Caterpillar Tractor Co.
Fulton Iron Works

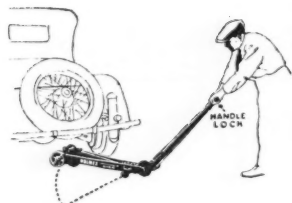
The Wm. Galloway Co.
The Gardner Governor Co.
General Motors Truck Co.
Harley-Davidson Motor Co.
Hart-Parr Co.
The Hercules Corp.
Hill Diesel Engine Co.
Hinkley Motors, Inc.
The Hope Forge & Machine Co.
Hudson Motor Car Co. (incl. "Essex.")
Indian Motorcycle Co.
Ingersoll-Rand Co.
International Harvester Co.
Isotta - Fraschini Co., Milan, Italy.
The Johnson Motor Co.
Kermath Mfg. Co.
Lalley Light Corp. (Owen Elec. Co., Suc.)
Lockwood-Ash Motor Co.
The Maytag Co.
The Miller Improved Gas Engine Co.
The Minneapolis Threshing Mch. Co.
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Witte Engine Works
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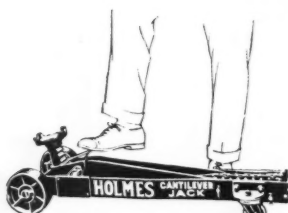


HOLMES CANTILEVER JACK

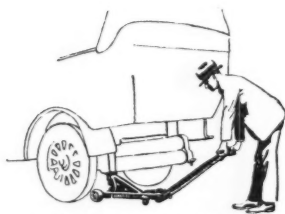
Is a Low Type and a High Type Jack in One



QUICKLY PLACED IN POSITION BY PIVOTING ON CASTERS



PLATFORM POST QUICKLY ADJUSTED



EXTREMELY EASY TO OPERATE

You don't need several types of jacks in your shop, for the Holmes Cantilever Jack combines every feature of the low type and the high type into one and it handles every job faster and more efficiently.

The Holmes Cantilever Jack has two speeds, low speed for actual lifting and high speed for raising platform to load. The high speed control is mounted in handle and works without movement of or regardless of handle position enabling operator to place and hold jack in exact position and eliminates resetting just before picking up load.

It is extremely easy to operate. One man can quickly and easily lift 5000 lbs. The platform and post are extra large and quickly adjusted.

Although the Holmes Cantilever Jack sells for the same price as ordinary jacks it is much cheaper--it takes the place of two jacks and eliminates hunting around for that high jack or that low jack.

Price \$ 36.00

Look over the features listed below and let your jobber explain just what they mean to rapid efficient garage service.

H-J 4

ERNEST HOLMES COMPANY
Chattanooga, Tennessee

Features!

- Drops to 6 inches
- Lifts Car 8 inches
- Raises to 17 inches
- Lifting Platform quickly adjusted
- Extremely easy to operate
- Operates from any position
- Quickly placed in position
- Swings under Wheels
- Platform and Post extra large
- Clearance under Frame 1-1/4"
- Roller and Ball Bearing
- All working parts exposed but adequately protected
- A Four Wheel Jack



Although the handle normally stands upright it folds compactly or can be locked for pivoting jack on casters.

MOTOR AGE

Reg. U. S. Pat. Office

VOL. XLVIII

No. 10

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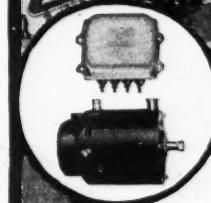
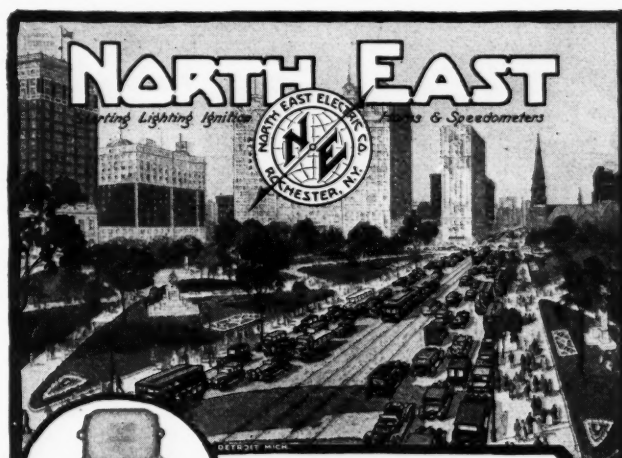
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Subscriptions accepted only from the Automotive Trade
Entered as Second Class Matter, Sept. 19, 1899, at the Post Office at
Chicago, Ill., under Act of March 6, 1879.



THERE is a North East Unit available for every class of service: Generators from 125 to 600 Watt capacity, Starting Motors, Ignition Units, Horns and Speedometers—all built with that same ruggedness and durability that is characteristic of North East Equipment.

Even in severe Bus Service North East equipment is upholding its standard for dependability and long life in the electrical system. North East heavy duty Generators with voltage regulation are providing ideal charging for the Battery with entire freedom from the necessity of changing and outside charging. Day in and day out North East equipment is giving continuous service with a minimum of attention.

Genuine North East parts and official service are available at North East Service Stations everywhere.

NORTH EAST ELECTRIC CO.

ROCHESTER, N. Y., U. S. A.

Manufacturers of Automotive Equipment for

| | |
|--------------------------|------------------------|
| Dodge Brothers | Reo |
| Graham Brothers | Yellow Cab |
| Yellow Coach | Mack |
| Berliet | Sterling Marine Engine |
| White | Safeway Six Wheeler |
| Fifth Avenue Coach | Dodge Watercar |
| Yellow Sleeve Valve Eng. | Delage |
| Acme Road Machine | Fay & Bowen |
| Selden | Moreland |
| American-LaFrance | Four Wheel Drive |
| Holt Caterpillar Tractor | |

NORTH EAST SERVICE INC.

ROCHESTER, N. Y.

Official North East Service Organization

| | |
|-------------|---------------|
| Atlanta | New York |
| Chicago | Rochester |
| Detroit | San Francisco |
| London | Toronto |
| Paris | |
| Kansas City | |

Service Stations in Cities of Importance throughout the World

Directory of Service Stations available on request

Space 321 at A. E. R. A. Convention



USE ONLY *Genuine* SERVICE PARTS



Peel 'em

"That's the way to make shims!

"Just take the old pocket knife and PEEL 'em. I can do two jobs where I only could do one before.

"And no filing: no bother: no wasted time and labor."

**All Jobbers Sell 'em
and There's a Shim for
Every Car.**

Address "Sales Dept."

LAMINATED SHIM COMPANY, Inc.

14th St. & Governor Place, Long Island City, N. Y.
St. Louis: Mazura Mfg. Co.

LAMINUM



*This symbol means that Studebaker prices do not
include the profits of outside body-makers*

Studebaker's new reduced prices widen still further the sales opportunity of dealers. For the public now knows that one-profit manufacture coupled with volume production results in savings which make it possible to reduce prices without cheapening quality. That is why Studebaker dealers are enjoying a record fall business after a record-breaking summer.

THE STUDEBAKER CORPORATION
OF AMERICA
SOUTH BEND, INDIANA

T H I S I S A S T U D E B A K E R Y E A R



TO BE A SUCCESSFUL business man you **MUST** do more than make sales—you **MUST** make sales **AT A PROFIT**—and you **MUST** operate your business to retain a reasonable part of your profits.

I believe I know the fundamentals underlying this important part of a dealer's business.

We are building Stutz distribution to the place where it offers a maximum of permanent co-operation and protection toward the establishment of a successful business. You should be interested.

FREDRICK E. MOSKOVICS
President

STUTZ MOTOR CAR COMPANY
of AMERICA, INC.
INDIANAPOLIS, INDIANA

Big...Powerful... Convenient to Operate

The New **WEAVER** Auto Crane [MODEL G]

To build a Crane that would better meet every requirement of towing service—easier and more convenient to operate—simpler in design—amply rugged and strong to handle the heaviest cars—at a price every shop could afford—

This was the task Weaver engineers set themselves. How splendidly they have succeeded you will realize only after a personal examination of the new features of the new Model G Auto Crane briefly mentioned and illustrated on the right.

Your jobber's salesman will be glad to arrange a demonstration for you. Ask him—and cash in on the season when towing profits are biggest.

Weaver Mfg. Company
Springfield, Illinois, U.S.A.
Weaver Canadian Co., Ltd., Chatham, Ont.



FEATURES

Increased Height and Overhang

Measuring from the hook on chain to the base of Crane the height can be adjusted from 2 ft. 4 in. to 5 ft. 6 in. providing a range of 3 ft. 2 in. When mounted on a truck the height of the crane is, of course, increased by the height of the truck. The overhang of the boom can be adjusted from 3 ft. 4 in. to 5 ft. 7 in., providing a range of 2 ft. 3 in. Ample clearance is thus afforded to handle closed cars.

Height of Boom Can Be Adjusted By Crane's Own Power

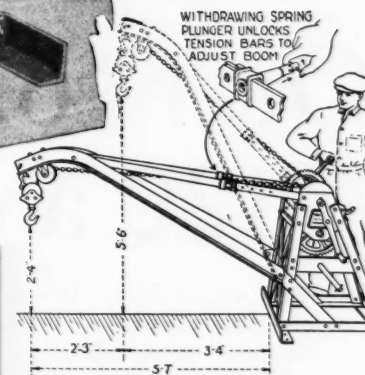
By withdrawing the two pins which lock together the two sections of the tension bars on each side, as shown in the accompanying sketch, and blocking the chain, the boom can be raised or lowered to the desired height by one man, even with the car suspended from the boom.

Operated From Ground or Car

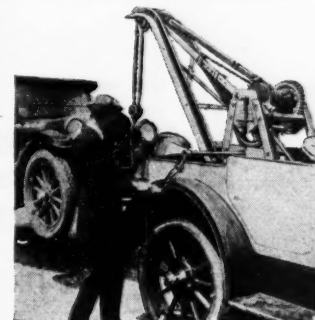
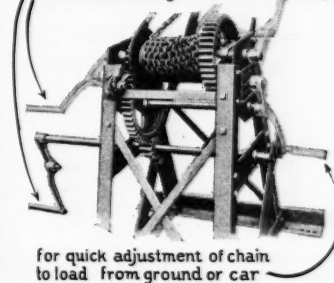
The compound gears afford two distinct speeds and leverages and permit the crane to be operated conveniently from the ground, or from the service car, as shown in the accompanying cut.

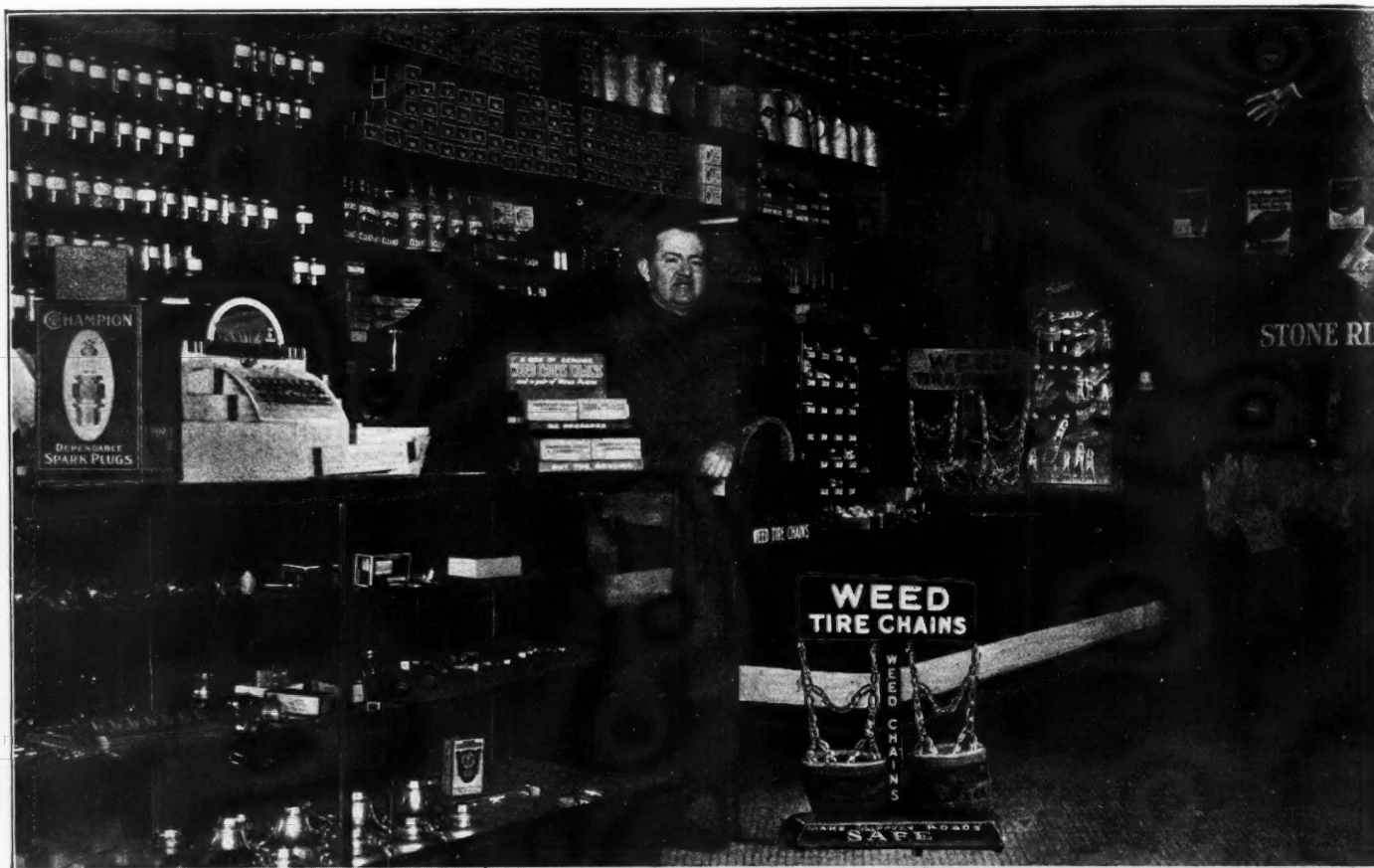
Capacity 6,000 Lbs.

Thirty-five feet of the best quality 3-8 in. chain is furnished as a part of the regular equipment with each Crane, amply strong to handle loads up to 6,000 lbs. Fifty feet of 7-16 in. cable will be supplied in place of the chain at the same price, when specified.



Maximum leverage from ground
Maximum leverage from car





Over \$6200 a year ~ \$120 a week ~ from WEED Chains!

This dealer says, "We sell WEEDS the year 'round—there's plenty of summer business to be had if you keep after it. Quite a lot of replacements in cross chains, too, and on slippery winter days we're so busy selling "WEEDS" we hardly have time to do anything else."

This shows what can be done when "WEEDS" are kept fresh in the minds of customers by

window displays, counter cards and personal reminders.

*Are you stocked
for winter business?*

Better check up now on all sizes—balloons and regulars. Winter profits are just around the corner.

To help you increase Weed sales, ask your jobber for this attractive metal display rack for counter or window—free.



AMERICAN CHAIN COMPANY, Inc.
BRIDGEPORT, CONNECTICUT

In Canada: DOMINION CHAIN COMPANY, Limited, Niagara Falls, Ontario
District Sales Offices: Boston Chicago New York Philadelphia Pittsburgh San Francisco
Largest Manufacturers of Welded and Weldless Chain for all purposes and the WEED Line of Automobile Accessories

WEED CHAINS

The most profitable of all accessories